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ABSTRACT

This document provides a materials guide containing annotated bibliographies of literature for teachers and students, a film guide, and a curriculum materials guide for educational sources relating to hunger, food, and the world food crisis. Materials span the range from pre-school to grade 12. (SL)

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HUNGER: The World Food Crisis

An NSTA Environmental Materials Guide

Kathryn Mervine Fowler

ED142394

National Science Teachers Association
1742 Connecticut Avenue, N.W.
Washington, D. C. 20009

Robert L. Silber, Executive Director

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HUNGER: The World Food Crisis

Kathryn Mervine Fowler

A Product of the NSTA Education Materials Guides
on Food and Population Project

John M. Fowler, Project Director

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PREFACE

This *Materials Guide* is one in a series of NSTA publications designed to facilitate the introduction of contemporary environmental topics into the K-12 classroom. It includes separate, annotated reading lists for teachers and for students at seven grade levels, along with guides to available films and curricular materials and a listing of organizations and agencies involved in food and hunger issues. It is not intended to be a comprehensive collection of existing materials on this broad topic. Rather, we have tried to select those references which seem most appropriate for classroom use and which are easily and inexpensively available. Other *Materials Guides* in this series include: *Energy-Environment Materials Guide* (Stock no. 471-14694; $2.00; 1975) and a companion guide on the world population crisis (to be published in Spring 1977).

KMF

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Part I

READINGS FOR TEACHERS

READINGS FOR TEACHERS

An annotated bibliography of books and articles selected for the classroom teacher.

Basic General References

1) **Food for People, Not for Profit.** A Sourcebook on the Food Crisis, edited by Catherine Lerza and Michael Jacobson (New York: Ballantine Books) 1975 (466pp.; $1.95).

Of all the books on food and hunger that have appeared recently, this is the one most likely to make the point that there is indeed a world food crisis and that each of us had better soon get to work to do something about it. Essentially a compendium of popular level articles on various aspects of the food and hunger issue, this was originally published as a "Food Day" handbook by the Center for Science in the Public Interest (See Appendix C). It is addressed to six major areas: Food Production; The Costs of Food; Nutrition; World Food; Food and the Poor; and The Government and the Food Industry: Who Regulates Whom? In addition, there is a section on "action ideas" to stimulate citizen involvement in food issues, a very useful set of appendices that provide recommendations of films and reading material, and a list of organizations involved in the food issue. There are other background books that provide as good an introduction to the basic subject matter, but none succeed as well as this one in conveying the sense of urgency and need for individual and organized action to combat the many abuses inherent in the current food system.

2) **By Bread Alone**, Lester R. Brown (New York: Praeger Publishers) 1974 (272pp.; $3.95).

Published for the Overseas Development Council (see Appendix C), this is a remarkably informative and inspiring account of the dimensions of the food crisis and the kinds of changes which must take place in society if we are to stem the crisis. Brown, an established and highly respected spokesman on food and hunger issues, examines a broad range of policy options: Limiting demand, controlling population, changing the diet of the affluent, and augmenting food supply, especially through improving the productivity of farmlands in the less developed countries. The underlying theme throughout all of this is the need for international cooperation and realization of our global interdependence. This is not just a call for change, but rather a carefully drawn exploration of current global problems and a fairly detailed accounting of what the future options are, and how they impact on the present situation. An excellent overview of the world food situation introduces the discussion, followed by five chapters on specific aspects of the problem: The history and geography of malnutrition, population and affluence, ecological undermining of food systems, and global food insecurity. Part Two provides an in-depth look at four basic areas: Land for food, water and bread, energy and agriculture, and the role of fertilizer. In Part Three, "Areas of Concern and Hope," Brown provides a discussion of the impact of the green revolution and the current role and future promise of oceanic fisheries. Four responses that could make a difference are examined in Part Four: Population control, simplifying diets, increased employment in agricultural activities, and special measures to assure food reserves and increased world access to food supplies. Finally, in "Toward Century's End," Brown examines the difficult problems involved in reordering national and international priorities in response to the needs of a hungry world.

3) **The World Food Situation and Prospects to 1985**, Economic Research Service, U.S. Department of Agriculture, Foreign Agriculture Economic Report No. 98 (Washington: USDA) December 1974 (90pp.) Limited copies available free from USDA. For sale by the Superintendent of Documents, USGPO, Washington, D.C. 20420; $1.70).

This brief study, commissioned in 1973 as part of the preparations for the World Food Conference, is designed to provide a comprehensive analysis of the factors which influence food production, consumption, and trade in the fifties and sixties and which caused the turbulence in global food supply in the seventies. It is an extremely useful reference, full of easy-to-read charts and graphs accompanied by a very straightforward, informative Text. Chapters One through Three provide a review of policies and trends over the last two decades and illustrate the influence they have had on the current world food situation. Projections of world food supply and demand to 1985 are examined in Chapter 4, while Chapter 5 provides a good discussion of the role that grain stocks have played in all this and the importance they will

continue to hold into the future. Chapters 6 through 10 deal with a broad spectrum of background topics and issues surrounding the world food situation: Nutrition, food aid policy and issues, factors affecting the supply of food (land, fertilizer, yield-increasing technology, and weather and climate) and the diversity among developing countries. Finally, Chapter 11 reports briefly on the World Food Conference held in Rome in 1974. There is a wealth of information here, much of it translated from statistical tables into a very readable text, making this an extremely valuable reference document for a variety of audiences, including the more advanced high school student.

4) Bread for the World, Arthur Simon (New York: Paulist Press) 1975 (179pp.; $1.50).

This is a good, thoughtful summary of the global food crisis, written from the perspective of the "Christian Citizens Movement" by the Executive Director of Bread for the World, an interdenominational organization concerned with hunger and poverty issues. To some extent, it is an update of Simon's earlier book, *The Politics of World Hunger* (See Part II, Strategies for the Future, #1). In part one, "The Struggle for Bread," Simon provides a general introduction to three major topics: Hunger, Food Production, and Population. "Bread and Justice," Part Two, is designed to provide a close look at the development problems of the Third World countries. The United States' role in world hunger problems is the focus of Part Three and separate chapters are addressed to American attitudes toward the world's poor and hungry, the problems of hunger in America, the impact of trade considerations on aid decisions, the role of investment abroad, and the need for reform in foreign aid policy and in military budgeting. Finally, in Part Four, "A Program for Action," Simon describes the various citizens' movements concerned with world hunger, including Bread for the World, and looks at the question, "What Can I Do?" A bibliography, film list, and directory of groups and agencies involved in food issues are included.

5) Food, Readings from Scientific American, edited by Johan E. Hoff and Jules Janick (San Francisco: W.H. Freeman and Co.) 1973 (268pp.; $5.50).

The twenty-eight articles which comprise this volume appeared in *Scientific American* between 1950 and 1972. While they are collected here under three main headings (Nutrition and Malnutrition, Conventional Sources and Resources, and The Future: Feast or Famine) they range in content across the entire spectrum of the food and hunger issue. As is usually the case with *Scientific American* articles, each is interestingly illustrated and provides the reader with a wealth of supplementary information in easy-to-read graphs and tables. Many of the authors are familiar to food professionals (Mayer on nutrition, Mangelsdorf on hybridization, Lester Brown on food production, etc.) and all have been chosen both for their applied knowledge in a particular area and for their proven ability to write well at the semi-popular level. The eleven articles in Part I, "Nutrition and Malnutrition," for instance, provide extremely readable and informative essays on everything from the chemistry of taste and smell and the sources of muscular energy to the relationship between appetite and obesity, to the function of Biotin in the diet, the causes and history of goiter and the problems of toxic substances and mercury in the environment. In "Conventional Sources and Resources," separate essays are included on corn, wheat, milk, cattle, poultry production, ocean resources, food additives, beer, and wine. The final section, "The Future: Feast or Famine," provides an excellent overview of the problems of food and population, human food production as a process in the biosphere, marine farming, new crops and food sources, and possible ways in which to close the gap between population growth and food production by 1985.

6) Food: Politics, Economics, Nutrition and Research, edited by Philip H. Abelson (Washington: American Association for the Advancement of Science) 1975 (202pp.; $4.95) Available: AAAS, 1515 Massachusetts Avenue, N.W., Washington, D.C. 20005

Based largely on a special issue of *Science* magazine (9 May 1975), this compendium of thirty-one articles ranges over a broad array of food topics. Together, they provide an excellent introduction to the world food crisis, its causes, magnitude, and possible solutions. The articles are grouped under four major headings, beginning with "Food, Economics, Politics, and Social Structure." Topics addressed here include world food distribution, the expansion of world food production, agribusiness

and agricultural trends, energy use in the U.S. food system, the effects of weather variability and climate change on grain production, the food situation in India, and agricultural practice and trends in China. Four articles on "Nutrition" follow, ranging from an explanation of the advantages of breast feeding, through an examination of nutrition and malnutrition in national development, a brief look at governmental nutrition policy, and a discussion of the management of famine relief. In "Agricultural Research," a series of twelve articles provide a review of current research topics, including rice breeding, tropical "agroecosystems," food production and the energy crisis, new irrigation techniques, and pest management. Finally, in "Basic Biology," six articles are directed to discussion of plant genetics, improving the efficiency of photosynthesis, and topics in nitrogen fixation research. A useful bibliography of additional *Science* articles on food, agriculture, and nutrition is appended.

7) The Hungry Planet, Georg Borgstrom (New York: The Macmillan Co.) 1972 (507pp.; $2.95).

Originally published in 1965, this study of "the modern world at the edge of famine" has become a classic reference in the food and nutrition literature. While much of the data provided in the tables and graphs is now somewhat dated, the basic premises remain as true and as urgent today as they were a decade ago. Most of these overview observations and data are provided in the first five chapters: Fifteen Billion People; The True Hunger Gap, and the Calorie Swindle; The Protein Crisis; The Biological Budget of Mankind; and Ghost Acreage (an examination of the role of food imports in many countries). Then, region by region, country by country, Borgstrom moves across the globe guiding the reader on a world tour of hunger, overpopulation, and resource scarcity. Beginning with Asia and China, Borgstrom moves on through India, Japan, Australia, the Soviet Union, Latin America, and Brazil, providing for each country a brief, readable summary of its particular problems and role in the global food situation. Finally, Borgstrom focuses on the United States, with particular attention to its stores of surplus crops (now greatly depleted) and its potential for serving as the breadbasket of the world. Finally, Borgstrom looks at potential new sources of food in the oceans and in the technology that will yield new foods from synthetic nutrients. Limiting factors of this technology, including worldwide shortage of water and the competition from such nationalistic programs as the space race, are examined in terms of the threat they pose to the possibility of ever providing sufficient food for the world's billions. (Other Borgstrom books that should be of interest after reading this one are: *Focal Points: A Global Food Strategy* (New York: Macmillan) 1973, *The Food and People Dilemma* (Belmont, California: Duxbury Press) 1974, and *World Food Resources* (Ecology Series) 1973.

8) New Hope for the Hungry? The Challenge of the World Food Crisis, Larry Minear (New York: Friendship Press) 1975 (136pp.; $1.95).

Larry Minear is a well-known and highly respected spokesman on world hunger issues for the Church World Service and the Lutheran World Relief, organizations which he represented in 1974 at the World Food Conference. A theologian and historian, Minear has done a particularly impressive job of drawing together the current statistics on world hunger and interpreting them in a way that is both highly informative and extremely easy to understand. He begins with an examination of "The Hungry: Who Are They?", providing a general outline of where world hunger occurs and then focusing in on specific cases of individuals here and abroad who live with the daily realities of chronic hunger. In Chapter 2, he examines the causes of hunger, beginning with recent global political and climatic effects and concluding with an examination of the long-range, sustained impact that global economic imbalance has had on the developing nations. In "The Conference," Chapter 3, Minear recounts the happenings at the World Food Conference and discusses in general terms what the motivating factors for that gathering were and what kinds of suggestions and conclusions came out of those deliberations. The three final chapters are directed to an examination of kinds of actions that can be taken by governments, by churches and private organizations, and by individuals to begin to deal on a global basis with bringing about change in the patterns of world food distribution and production. A list of additional references is provided in an appendix.

9) Food and Population: The Next Crisis, Douglas N. Ross (New York: The Conference Board) 1974 (42pp.; $4.00) Available: The Conference Board, 845 Third Avenue, New York, New York 10022

Prepared by The Conference Board staff as a background paper on the prospects of a world food crisis, this brief outline of the nature of the world food problem, of efforts currently underway to achieve its solution, and of options which could be pursued in the future, provides a good, non-technical introduction to the major issues in the global food crisis. Specific topics addressed here include: Foreign Agricultural Assistance, Appropriate Agricultural Techniques, the World Food and Grain Situation, Ecological Scarcity, Energy and Food, Fertilizer, the Indian Situation, World Population Pressures, the U.N. Population Conference, the World Food Conference, and What the Private Sector Can Do. Numerous easy-to-read tables and graphs illustrate the text and the appendices include a substantial excerpt from "The Third World Food Problem," a report of the President's Science Advisory Committee, along with a brief summary of food-related activities conducted by various groups and organizations and a list of the corporations and foundations represented by the Conference Board Council members. (Special prices for bulk orders for classroom and group use are available from the Board on request.)

10) The World Food Prospect, Lester R. Brown, *Science* 190: 1053-1059, 12 December 1975.

Science is one of the journals to watch for articles on food, nutrition, and hunger. This is but one of many articles that have been published since the latest compendium (See Part I, Basic General References, #6) and it is a particularly useful one, providing an excellent overview of the current world food situation and the forecast for the future. Brown begins by pointing out that the worldwide food shortages of recent years, which have been assumed to be temporary, could become more or less chronic: "Within a span of a few years the world's surplus stock and excess production capacity have largely disappeared. Today the entire world is living hand to mouth trying to make it from one harvest to the next." Brown surveys new sources of global food insecurity—reduced grain stocks held by exporting countries, cropland idled under farm programs in the U.S., near total worldwide dependence on North American food supplies, increasing grain imports by the Soviet Union, and an unstable market leading to violent fluctuation in world food prices. He examines the emergence of the "North American Breadbasket" and looks at the food situation in several key countries—Japan, China, India, the Soviet Union, and Brazil. Brown also reviews the influence of the newly wealthy OPEC countries, with their increasing populations, raised standard of living, and growing need for food imports. Finally, Brown reviews the setbacks in the so-called Green Revolution countries, where population continues to overrun technology, and at the disturbing trend of decreasing grain output per hectare. In surveying future food prospects he notes that it is increasingly difficult and expensive to open new land to agriculture, that water and fertilizer are both getting scarce, and that the world fish catch may have passed its peak. Brown concludes: "In the future, scarcity may be more or less persistent, relieved only by sporadic surpluses, of a local and short-lived nature. The prospects are that dependence on North America will be likely to continue to increase, the increase probably being limited only by the region's export capacity."

Nutrition and Malnutrition

1) The Nutrition Factor, Its Role in National Development, Alan Berg (Washington: The Brookings Institution) 1973 (290pp.; $4.95).

Prepared under joint sponsorship of the Brookings Institution and the Foundation for Child Development, this volume reports the results of an extensive study into the ways in which malnutrition impedes national development, the means currently available for dealing with malnutrition, and the possible future courses of action to combat the problems of hunger in the developing nations. The focus here is not on the science of nutrition, but rather on the policy direction and program needs required to address the problem of malnutrition in a systematic way. Berg argues that malnutrition is both a consequence and a cause of national underdevelopment and that "better nutrition of the child is essential to his subsequent contribution to the national economy." Berg views nutrition as a problem that will require government intervention to produce new kinds of organizations, research, and above all, a new level of concern. He suggests several initiatives that could be undertaken immediately, including education to reverse the trend of declining breast-feeding of infants and programs to encourage the adoption of new and fortified foods that could provide better nutrition at a reasonable cost. This is a very thoughtful, well-documented analysis of the real costs of malnutrition, and one that should be read by everyone

seeking to understand this important aspect of the food crisis.

2) Nutrition and Our Overpopulated Planet, Solan L. Manocha (Springfield, Illinois: Charles C. Thomas Publishing Co.) 1975 (472pp.; $16.75).

This is primarily an examination of the nutritional requirements of various age groups and the numbers of people competing for their share of the world's food resources. While Manocha views the halting of explosive population growth as the ultimate solution to the present dilemma of population and food supplies, he suggests a number of interim measures which could ease the crisis. These include implementing nutrition education programs, developing more equitable distribution of food supplies both between and within societies, and utilizing a more complete variety of food products, including unconventional synthetic foods. Manocha begins by providing a useful overview of the world food and population dilemma, along with strong arguments for the need to stabilize the human population. In "Feeding the Teeming Millions," he provides an interesting summary of the green revolution approach to agriculture, food processing and food additives, and socio-economic and marketing problems in popularizing new foods. He then turns to individual chapter treatments of the nutritional status and requirements of various age groups—infants and preschool children, adolescents and adults, and the elderly. Finally, he looks briefly at the causes and effects of obesity and malnutrition. All in all this is a fascinating monograph, full of both useful historical background information and basic information on human nutritional needs. Numerous references are included at the end of each chapter and the appendices contain information both on world population and on the nutritive value of common foods.

3) U.S. Nutrition Policies in the Seventies, edited by Jean Mayer (San Francisco: W.H. Freeman and Co.) 1973 (256pp.; $3.95).

Jean Mayer, one of the best known writers on nutrition in America, has produced an impressive array of writings over the years, ranging from newspaper and magazine columns through popular level interpretations of nutrition practices and concepts, to scholarly works aimed at the professional nutritionist. This particular book is the report of a study chaired by Mayer as a follow-up into the basic recommendations which were put forward in a White House Conference on Food, Nutrition and Health. It includes brief essays from several fellow experts on the causes, effects and possible remedies for hunger and malnutrition in the United States. It is one of the most authoritative documents in print on this important topic and it should be of interest to professionals and non-professionals alike as it touches on many related science and social science fields.

4) The Two Faces of Malnutrition, Erik Eckholm and Frank Record (Washington: The Worldwatch Institute) December 1976 (63pp.; $2.00) Available: Worldwatch Institute, 1776 Massachusetts Avenue, N.W., Washington, D.C. 20036

Most of the literature on global nutrition focuses on the problems of undernutrition—and quite rightly because, up until very recently, getting together enough food to stay alive was one of the universal human challenges. Underconsumption still remains a chronic problem in many parts of the globe, but it has recently been joined by an equally malicious nutritional problem, that of overconsumption. There is increasing evidence, in fact, that far more deaths are occurring from overconsumption-related diseases (i.e., heart disease, obesity, and cancer) that can be attributed to undernutritional situation is provided in this recent paper from Worldwatch Institute, an independent, nonprofit research organization, created to identify and to focus attention on global problems. The authors begin by providing a general overview of undernutrition, overnutrition, and health. The first three chapters are focused on undernutrition, its human geography, relationship to disease, and the debilitating influence it has on mental development. The discussion then shifts to the problems of overnutrition, with separate chapters on the emergence of the affluent diet, the increasing incidence of rocoronary heart disease, obesity, hypertension, diabetes, and cancer. It is a sobering chronicle of the ways in which improper diet, in this case primarily the overconsumption of fats and refined foods, are leading to massive human suffering and fatalities. Suggestions of dietary changes that could improve the nutritional status of affluent countries are provided along with a review of the steps that are currently being taken in Sweden and Norway to combat the problem of nutritional ignorance. The

authors argue strongly for the development of a national nutrition strategy in this country, concluding that: "Few potential social policies promise so many benefits and so few costs as the decision to alter the affluent diet." An extensive list of references is appended.

5) Diet for a Small Planet, Frances Moore Lappé (New York: Ballantine Books) 1975 (411pp.; $1.95).

Essentially, this is a book about protein, why we need it, and how we can go about getting it. It presents, in very simplified terms, some very strong arguments for changing our eating habits and making the American diet grain-based rather than meat-based. Part I, "Earth's Labor Lost," provides an overview of world food supply and eating patterns, with particular emphasis on the American diet and the amount of inefficiency and waste tied up in our food practices. Lappé argues strongly for "eating low on the food chain," pointing out that "in a world where most of the people are hungry, it should become unthinkable to feed humanly nutritious food to animals." In Part II, "Bringing Protein Theory Down to Earth," Lappé examines some common myths about protein, defines protein quality, and describes what our protein needs really are. All of this is basically background to Parts III and IV in which Lappé provides the kind of practical information needed to switch over to the vegetarian lifestyle. The protein rating of various food groups is provided along with a series of tables and tips describing how to complement one kind of protein with another in order to achieve the maximum quality. Numerous recipes and menus are included in the final chapter, all of them simple, imaginative, and designed to appeal aesthetically as well as nutritionally. In 1971 when Lappé first published this book, it was aimed at a small group of activists who, for the most part, had already made the shift to meatless eating and were anxious to experiment with new recipes. That edition went into fourteen printings, and this new edition, issued in 1975, is already into a fourth printing. Obviously, Lappé has both reached a larger audience than anticipated and, with this second edition, she may well be reaching an audience that, for the most part, she herself created. It is a provocative book, and a popular one. It's also good reading designed to promote good nutrition.

6) Food for Nought, The Decline in Nutrition, Ross Hume Hall (New York: Random House) 1974 (308pp.; $3.95).

Hume begins this examination of contemporary technology and its impact on the nutritional quality of food by stating that: "Nourishment of the American populace has undergone a startling transformation since World War II. A highly individual system of growing and marketing food has been transformed into a gigantic, highly integrated service system in which the object is not to nourish or even to feed, but to force an ever-increasing consumption of fabricated products." In support of this contention, Hume, a biochemist, provides a readable, nontechnical account of everything from the evolution of bread-making through food-processing by the "food technologists," the increasing use of imitation flavors, colors, and assorted food additives, consumerism, the use of chemicals and hormones in the raising of livestock, the chemical and biological control of pests, soil fertility, the green revolution, agribusiness, infantile nutrition, and the relationship between heart disease and the intake of refined sugar. Supporting data is provided in the appendices, along with a useful glossary and an extended list of references.

7) The Value of Food, Patty Fisher and Arnold Bender (New York: Oxford University Press) 1975 (second edition; 184pp.; $5.25).

This is a fairly comprehensive text on the nutritional aspects of food and on the practical application of the science of nutrition. Designed primarily for use by students of home economics, social science, food technology, and hotel management, the text is fully illustrated with graphs and tables, and provides a wealth of information for the serious student. There is very little descriptive or background information, and the text is written in a very straightforward, presentation-of-information style with questions at the end of each chapter. A brief bibliography is appended.

8) Food for Thought, T.P. Labuza (Westport, Connecticut: The Avi Publishing Co.) 1974 (179pp.; $5.00).

This is basically an undergraduate textbook on nutrition, but it is written in a clear, concise style that should make it a useful reference for the general reader seeking an introduction to the science

of nutrition. Labuza begins by relating nutrition to body requirements and physical well-being in a series of ten chapters: Nutritional Adequacy, Nutrient Requirements and Energy, Carbohydrates, Fats, Fat and Heart Disease, Protein, Water and Oxygen, Vitamins, Minerals and Trace Elements, and Digestion. The next nine chapters provide an examination of food processing, with particular emphasis on nutritional value and the safety of food additives. Finally, Labuza zeroes in on the American diet, obesity, and the growing interest in organic and natural foods. A list of recommended readings and a brief glossary are appended.

9) **Nutrition Scoreboard**, Your Guide to Better Eating, Michael F. Jacobson (New York: Avon) 1975 (213pp.; $1.75).

Prepared by the Director of the Center for Science in the Public Interest, this is a handy, simplified guide to distinguishing between good food and junk food. Jacobson has devised a numerical rating system which provides, at a glance, a rating of the nutritional value of a tremendous range of foods, from beef liver, at a +172, to soda pop, at a -92. A wealth of background information on nutrition is provided in the opening chapters, "The American Way of Eating" and "Rating the Nutritional Value of Foods." This latter chapter contains separate sections on protein, fat, vitamins, trace minerals, etc. In the third chapter, Jacobson notes that the Scoreboard System does not cover some items, such as food additives and foods for babies. He describes the limitations of the system and gives the nutritional ratings of various foods (soups, dairy products, vegetables, fresh fruits, bread, snacks, desserts, etc.), many of them by brand name. Sample diets are provided, and the reader is encouraged to rate his own diet in terms of its nutritional value. (A condensation of this book, *Food Scorecard*, is reviewed in Part III, Grades 5-9, #2.)

10) **Dictionary of Nutrition**, Richard Ashley and Heidi Duggal (New York: St. Martin's Press) 1975 (236pp.; $8.95).

It is often helpful, when teaching or learning about nutrition, to have a single source in which to quickly look up a particular food or ingredient, and to find a simple, concise explanation of its nutritional properties, uses, and dangers. This dictionary is designed to perform just that function, and it succeeds well enough that it should be included in any classroom or school library where nutrition questions are likely to arise. In format it is just like any dictionary, with an alphabetical index that is easy to use, and which contains several hundred entries, ranging from Accent, botulism, and dental caries, to honey, lactose, mayonnaise, and sea salt, and ending with yogurt. Under each entry a brief paragraph provides information on the main properties of that particular food and a brief warning outlining any dangers asssociated with it. Tables, providing data on composition and nutrient value per serving, are provided for many of the entries. While this is in no way a complete reference to the nutritional value of foods, it is a quick, reliable source of basic information and one that should prove to be quite useful.

Food Production and Distribution

1) **Radical Agriculture**, edited by Richard Merrill (New York: Harper and Row) 1976 (459pp.; $6.95).

It has been suggested by many critics of the American food industry that we have become affluent at the expense of agriculture, not because of it. Several of the authors contributing essays for this anthology argue that, along with the problems of high land prices, pollution control, poor farm management, and diseconomies of scale, there has been an increasing isolation between urban and rural cultures: "We seem to miss the point that the decaying urban condition has its origins in the decaying rural condition. A radical agriculture, geared to the needs of a post-industrial society, must begin in the cities as well as the farms. Then we can finally come together." An impressive collection of essays has been pulled together here in support of that belief. They are organized under five topics: Land and Culture, Agriculture and Agribusiness, Rural Struggles and Alternatives, Cities and Farms, and Food, Energy and the New Rural Renaissance. Their authors provide a good, representative cross section of the social scientists, journalists, economists, and political activists who have been at the center of the agricultural reform movement in this country. Their writings range from fairly broad descriptions of the problems of corporate accountability, efficiency in agriculture, and the implications of the green revolution, to

fairly detailed discussions of small-scale fish farming and the home utilization of solar energy. Together they provide an interesting and informative introduction to a wide range of food production topics.

2) Seeds of Change: The Green Revolution and Development in the 1970's, Lester R. Brown (New York: Praeger Publishers) 1970 (205pp.; $2.50).

In the late 1950's an agricultural breakthrough occurred with the development of a new variety of wheat that yielded more than twice as much grain per acre than did traditional strains. This was quickly followed by the development of a similarly impressive "miracle rice" and the so-called Green Revolution, a farm technology based on hybrids, water, and fertilizer that could dramatically increase agricultural productivity, was underway. There was great hope that this boosted productivity could keep pace with rapidly increasing population, particularly in the emerging nations where hunger and malnutrition is an all too familiar way of life. For the most part, however, this is a book about what might have been. The reality of the Green Revolution has, unfortunately, fallen far short of expectation, partly because of the Vietnam war and increasing domestic problems in the United States which have absorbed much of the energy which was once directed to our foreign aid programs. But Brown still sees great hope that the advances brought about by the Green Revolution could be translated into raising the daily diet of virtually every country above the nutritional minimum. The kind of social decisions that such a revolution would require are clearly set forward here, making this an important and valuable reference, not just on food production, but on the allied issues of global interdependence and the distribution of food resources.

3) World Food and Nutrition Study: Enhancement of Food Production for the United States, National Research Council, National Academy of Sciences, Report of the Board of Agricultural and Renewable Resources (Washington: National Academy of Sciences) 1975 (174pp.; $6.00) Available: The National Academy of Sciences, Printing and Publishing Office, 2101 Constitution Avenue, N.W., Washington, D.C. 20418

This report was prepared in response to a Presidential request for an assessment of the national food problem in terms of recommended research and development to insure the food supply and improve nutrition in the United States and in other countries around the world. Part One reports suggestions and conclusions reached by the study group on such topics as management of technological innovations in food systems and constraint on U.S. agricultural production and research. Part Two examines national needs for land, water, and manpower resources, and for research into specific areas: human nutrition, energy, weather, crop and livestock production, and biological processes that control or limit productivity. Throughout the report, emphasis is placed on the need to insure that increased production is achieved with a minimum expenditure of such nonrenewable resources as land, water, energy, and fertilizer, and with maximum attention to the environmental impacts of all food production processes. While the main focus of all these recommendations is on technological research and development (biological, physical, and chemical), this also provides an excellent introduction to the kind of institutional, economic, and social changes which improved agricultural practices will require. A good selection of references is provided at the end of each of the five sections: Human Nutrition; Natural Resource Base; Input Management and the Environment; Production of Food and Feed Crops; Livestock, Poultry and Fish Production; and Food Science and Technology. There is also a very useful chapter in Part One which goes through recent federal legislation and regulation, and examines them individually in terms of their impact on agricultural production and research. While this is not written as an attempt to interest the general public in this topic, it is a very useful and informative document for anyone seeking an understanding of how our food production system works, and how it could be made to work better.

4) Food and Agriculture, a *Scientific American* book (San Francisco, California: W.H. Freeman and Co.) 1976 (154pp.; $4.95).

Based on the September 1976 special issue of *Scientific American*, this collection of essays is addressed to the question: "How will the world feed the three million additional people who will join the population between now and the end of the century?" Each of the authors represented here has been chosen because of his firsthand experience in researching a particular aspect of the prob-

lem of world hunger. As is typically the case with articles in this journal, the writing is exceptionally good, and excellent illustrations (102 in all) accompany each essay. In all, there are twelve articles: Food and Agriculture; The Dimensions of Human Hunger; The Requirements of Human Nutrition; The Cycles of Plant and Animal Nutrition; The Plants and Animals that Nourish Man; Agricultural Systems; The Agriculture of the U.S.; The Agriculture of Mexico; The Agriculture of India; The Resources Available for Agriculture; The Amplification of Agricultural Production; and The Development of Agriculture in Developing Countries. This is an excellent resource for the teacher who needs a quick, readable, and informative introduction into this important topic.

5) Eat Your Heart Out, Jim Hightower (New York: Random House) 1976 (335pp.; $1.95).

Jim Hightower, a well-known spokesman in Washington for reform in the food industry, was for several years Director of the Agribusiness Accountability Project (see Appendix C), and is the author of *Hard Tomatoes, Hard Times*, a book about the failure of food and farm research. For years he has been writing and testifying before Congress in an attempt to awaken the American public to the dangers of the giant food conglomerates, and to the plight of the family farmer who is slowly being squeezed out of the agricultural market. This volume provides an excellent summary of his major arguments for economic smallness, and a strong call for the urban consumer to look at the facts and recognize that it is the agribusiness corporations, not the individual farmer, who are behind the increasing high price and low quality of the food we are offered in the market. Hightower's main complaint is not that farmers grow food for corporate middlemen, but that the middle sector of our food economy is growing monopolistic, with fewer and fewer companies controlling more and more of the foods we have available to choose from. He documents this charge convincingly, often quotably, and with a flair for the humorous and the absurd that makes this the kind of book you want to share with a friend.

6) The American Food Scandal, William Robbins (New York: William Morrow and Co.) 1974 (280pp.; $6.95).

Consumer advocates have long lamented the influence of agribusiness on the quality and price of American food, and many of their complaints are well-documented here. Robbins, a reporter and editor for the *New York Times*, has carefully researched the growth of huge food companies, particularly those that control California's farm production, and has provided a fascinating account of how food moves from the farm to the market and, finally, to our homes. It is a disturbing picture, focused on the excesses of corporate influence, misleading advertising, price fixing in the food market, and the sacrifice of food quality to the convenience needs of the large producers. There is an enlightening chapter on the Russian wheat deals and one on the politics of the milk lobby, both enough to set a taxpayer's teeth on edge. It is, by design, a disturbing book, but it is also a well-documented one that informs as well as it infuriates. It should certainly add spice and interest to any high school class discussion of food production and/or the food industry, and it is a book that both students and teachers should find readable and enjoyable.

7) The Supermarket Trap, Jennifer Cross (Bloomington, Indiana: Indiana University Press) 1970 (258pp.; $10.00).

The consumer boycott of food chains in 1966 spawned a number of books designed to educate the public about the inner workings of the supermarket. This is a particularly good example of that literature and, while it is now six years old, not much has really changed. There is some very interesting information included here on supermarket pricing policies, selling tactics, and gimmicks, such as the stamps and games that were for a while quite popular. Cross provides a lot of simple, common sense advice on how to shop wisely despite the confusion, but she also has done a fairly thorough job of exploring the more subtle areas of food packaging, advertising, and federal regulation. From the outset, she confesses to a consumer bias, mostly because the odds are so heavily stacked against the individual shopper. At any rate, there is a lot of useful, practical information here on how to shop wisely, a topic that needs to be emphasized as part of everyone's general education, and along with that, there is a good, general overview of how food is marketed in this country, how food prices are determined, and why the quality of food in the supermarkets is often disappointing.

8) Groceries in the Ghetto, Donald E. Sexton, Jr. (Lexington, Massachusetts: D.C. Heath and Co.) 1973 (141pp.; $8.50).

Designed to provide "a reasonably complete and empirically supported description of the inner-city food marketplace" this is a thorough and fascinating examination of urban food stores, where consumers have long complained of higher food prices and lower product quality than is found elsewhere, particularly in the suburbs. These complaints are especially serious in light of the comparatively large outlays the poor must make for food, often paying out more than 20 percent of their income on just this one area of household expense. Sexton begins by investigating the extent to which food prices really are higher in the inner city, and then moves to examine the causes for price and quality discrimination. Finally, he suggests changes which might provide more efficient kinds of food retailing systems for this segment of the food consuming public. Much of the data included here is based on studies in Chicago, Illinois during the 1960's, and Sexton very carefully documents the difficulties in collecting that kind of information. There is the risk here that Sexton will tell you more about this particular problem than you really want to know, but it is an extremely important topic, one that has had, and continues to have, serious social consequences for all consumers.

9) A Mosaic Special: Food, *Mosaic*, Volume 6, Number 3 (Washington: National Science Foundation) May/June 1975 ($1.45) Available: Superintendent of Documents, U.S. Government Printing Office; Washington, D.C. 20402

Designed to highlight NSF-supported research relating to food, this is, for the most part, a discussion of the non-population factors which limit the supply of food resources. The issue begins with an overview article based on current research efforts to produce a model of the world food system which would account for the interactions of all the food-related supply and demand factors. This is followed by three articles on new sources of food: "Eating the Inedible," a look at the potential food value of waste materials and grains now fed to livestock, like alfalfa, which might be converted to food for human consumption; "All That Unplowed Land," an examination of the agricultural potential of the deserts, grasslands, tropical forests, and savannas; and "All That Unplowed Sea," a brief review of the potential of agriculture for providing increased food resources. The biology of food supply is examined in "Building the Research Base of a New Green Revolution," with particular emphasis on the study of photosynthesis vs. respiration, transport systems (water and food), nitrogen fixation, pest control, and crossbreeding. The impact of climate on agriculture is reviewed in "Climate: How Large an Unknown is the Food Equation" and, in the final article, a brief overview of the structure and culture of small agriculture societies is provided to introduce the important topic of social dynamics and its impact on food production.

10) Energy and Land Constraints in Food Protein Production, David Pimentel et al., *Science* 190: 754-761, 21 November 1975.

A number of articles have appeared over the past few years in the continuing attempt to better understand the interrelationship between food and energy. This is one of the most succinct and readable of that collection, and it has the added advantage of incorporating extensive references to additional literature on food production constraints. Its major strength, however, is that it deals with the real heart of the world food problem—the production of protein. Drawing on recent data on world per capita protein consumption, the authors point out the great disparity between protein consumption in the U.S., particularly animal protein, and the much lower, mostly vegetable, protein that is available to the rest of the world. They note that, while most of the world would like to eat as we do, there is simply not enough energy, water, and land available to make that possible, particularly if the world population continues to grow toward a projected seven billion people by 2000. World diets will have to depend mainly on vegetable protein, which means that cereals and legumes will become increasingly important crops. But it is doubtful that even vegetable protein production can keep pace with world population growth, a fact which lies behind the authors' somber conclusion: "Science and technology will help man overcome some of the food and other crises facing [him] as his numbers rapidly increase, but the obvious solution is effective, organized population control. Clearly, if man does not control his numbers, nature will."

Food and Culture

1) **Nutrition, Behavior and Change**, Helen H. Gifft, Marjorie B. Washbon, and Gail G. Harrison (Englewood Cliffs, New Jersey: Prentice Hall) 1972 (392pp.; $10.95).

This is a unique and extremely interesting text which focuses on the sociocultural aspects of food and nutrition. Of primary interest to the authors are the social, cultural, and psychological factors which influence food behavior and which make up the basis for current food consumption patterns. Using a combination of research findings and theory, the authors provide a very broad view of food behavior and its resultant effects on human welfare. The complicated connections between what people choose to eat and their total life-style are explored in an attempt to illustrate how eating patterns can be interpreted as adaptation to different environmental influences. The nutritional patterns of the U.S. population are given special attention and discussion is directed to such topics as hunger, obesity, malnutrition, and heart disease. Individual chapters are directed to the development of food consumption patterns, influences on American eating patterns, food consumption patterns and individual well-being, the need for change in U.S. consumption patterns, and the important issues confronting nutrition education. While it is aimed at those in the professions concerned with nutrition, this should be a useful reference for anyone interested in a broad, thoughtful analysis of the social and cultural patterns which influence our food behavior.

2) **Food and Man**, second edition, Miriam Lowenberg, et. al. (New York: John Wiley & Sons) 1974 (459pp.; $11.50).

Originally issued in 1968, this college text on food and nutrition has long been a favorite of teachers and students alike. It is a particularly good source of information on the origins of food habits and includes some extremely interesting material in the two opening chapters: "Food Patterns—Origins and Development from Early Times Through Roman Times" and "Food Patterns—Origins and Development from Medieval Times Through the 19th Century." The authors also provide an exceptional treatment of different cultural approaches to food in the chapter "Food Habits and Foodways" in which they examine the influence of cultural backgrounds, group pressure, ethnic influences, the impact of geography and technology, and the role of symbolism, feasts, and festivals. Additional chapters examine the development of man's knowledge of nutrition, the interrelationship between religion and food, the effects of chronic hunger, the realities of malnutrition and disease, and existing programs to improve nutrition. All of these chapters reflect the increased emphasis in this revision of the text on stressing the problems of the world food supply and the global hunger problem, particularly in terms of unique cultural preferences and environmental conditions which determine the kinds of food aid and programs suitable for individual countries. An excellent set of appendices provides information under six headings: Teaching Hints, Glossary, Textbooks on Nutrition, Books for General Reference, Addresses for Source Materials, and Films for Food and Man.

3) **Seed to Civilization, the Story of Man's Food**, Charles B. Heiser, Jr. (San Francisco: W.H. Freeman and Co.) 1973 (243pp.; $4.50).

Designed as a text or supplementary reader for undergraduate science students, this brief but quite thorough treatment of the origins of agriculture and the nature of man's basic food plants and animals provide an excellent, readable summary for the general reader. It is a book full of intriguing details describing the farming and eating habits of prehistoric man, the domestication of assorted animals, from dogs and pigs to chickens and water buffalo, the kinds of grasses that have been grown and consumed around the world, the role of legumes in man's diet, the history of starches, and the cultural importance of such specialized foods as spices, coffee, tea, and cocoa. Throughout the entire discussion there is an underlying emphasis on the problems of food supply and hunger, the patterns of food use and distribution that have developed with the growth of civilization, and the kind of discoveries and changes that have led to the evolution and breeding of new food sources. An excellent list of references is appended, and there are very interesting photographs scattered throughout the text.

4) **Food in History**, Reay Tannahill (New York: Stein and Day) 1973 (448pp.; $4.95).

This is a fascinating account of eating habits from prehistoric times to the present day. Tannahill's tale ranges across time and continents touch-

ing briefly on the earliest civilizations in the Near East, Egypt and Europe, Asia and the Arab world, Europe in Medieval times, and the expanding world in 1490 to 1800 when new worlds and new foods were being discovered. There are useful illustrations and maps scattered throughout the text to orient the reader and to provide pictures of the various farming practices, customs, and foods described in the text. All in all, this is an extremely rich, thoroughly researched, and well-written account of the forces that have shaped the nature of man's diet and the influence that dietary patterns have had on history. It is a book which should prove to be enjoyable leisure reading as well as an excellent reference document for classroom discussions and student projects.

5) Eating in America, A History, Waverly Root and Richard de Rochemont (New York: William Morrow and Co.) 1976 (511pp.; $16.95).

Described on the book jacket as "an erudite and evocative social history of American gastronomy," this is a thorough and extremely readable survey of American eating habits from the days of Columbus to the present. Numerous myths about the origins of various foods are debunked and there are fascinating, detailed accounts of everything from the daily fare which enabled the early pioneers to cross the country, to Indian cooking, food during the various wars, the evolution of restaurants, and the problems with our present, overly refined and processed foods. There is a vast amount of information here to add interest to a classroom discussion of the American diet, or just to enliven a unit on colonial or pioneer life, or the day-to-day life of the Civil War soldier. It is all very well written, aimed at the "Best Sellers List" audience, and guaranteed to stimulate interest in this fairly obscure aspect of American history.

6) The World Atlas of Food, J. Grigson, contributing editor (New York: Simon and Schuster) 1974 (319pp.; $29.95).

This is a beautifully illustrated book, clearly aimed at the "coffee table" market as well as at the food connoisseur and educator. It is full of interesting tales about the historical and geographic origins of food, and provides a wealth of information about regional and national food habits. There is also quite a bit of information, in pictures and text, describing the preparation of various foods, and a large part of the book consists of instructions for preparing an excellent selection of special dishes from all over the world. There are many ways in which this could be a useful teaching reference, beyond being just delightful, informative reading. It is a good source of interesting facts to spice up a classroom discussion on food and culture, and it is also the kind of book that students would enjoy perusing at their leisure.

7) Folklore and Odysseys of Food and Medicinal Plants, Ernst and Johanna Lehren (New York: Farrar, Straus, Giroux) 1973 (128pp.; $3.45).

Subtitled, "An Illustrated Sourcebook of Therapeutic, Magical, Exotic and Nutritional Uses," this is essentially a compendium of information about food and food practices. Supplementing this is a pictorial directory of assorted herbs, spices, and seeds with brief descriptions of their medicinal, nutritive, religious, legendary, and symbolic properties. The illustrations alone provide an invaluable collection of drawings and engravings from around the world, each of them depicting either a particular plant or food or a scene documenting a food or agricultural custom described in the text. There are separate sections on the cereals (barley, buckwheat, maize, millet, oats, rice, rye, and wheat), the stimulants (beer, betel nut, coca and cola, cocoa, coffee, tea, tobacco, whiskey, and wine), the odysseys of plants (the banana, coconut, cotton, paper, peanut, etc.), and a long section on the Phyoric Garden which looks at an assortment of medicinal and culinary herbs. It is a beautiful book and one that should be of interest and value to both students and teachers.

8) The Food Book, James Trager (New York: Grossman Publishers) 1970 (578pp.; $3.95).

This is a huge, delightful book, described by its author as "fortified, enriched, concentrated, country-fresh, lip smacking, finger licking, international and unexpurgated." There is a little bit of everything about food in here, but mostly it is a collection of food lore, all told with a great deal of humor and warmth. Trager goes back to Imperial Roman times to recount the excesses of the Roman banquet tables, and the various special properties that were attributed to certain foods. He provides a fascinating account of the origins of numerous foods and food habits, providing an encyclopedic

history of everything from the impact of scurvy on the exploration of the world, to the invention of peanut butter, and the dawn of the can opener. A great deal of useful information is provided throughout all the chapters, and the author's tone and style make it easy and enjoyable reading. In 1972, Trager published a companion to this volume, *The Belly Book* (Grossman Publishers) which does for health and diet what this volume does for food. Both are unique in their approach and a pleasure to read.

Hunger in the U.S.

1) Food for the Hungry: The Reluctant Society, Judith A. Segal (Baltimore: Johns Hopkins Press) 1970 (83pp.; $1.95).

Segal does a superb job here of refuting many of the old myths about why there are people in this country who need public assistance, either through welfare or through food aid programs. She has a good ear for bigotry and has carefully amassed the facts and figures to combat that familiar litany of accusations, culminating in the all-time favorite, that most of the poor are in that state because they are just too lazy to work. Segal describes in some detail what it is like to be poor in an affluent country, and what it is like, day after day, to be hungry. She discusses the kinds of programs that exist to help feed the poor, and analyzes the many factors that have caused their failure. She looks at how diet decisions are made in the poor household, how and where the poor shop for food, and at the great need for nutrition education that is going largely unanswered. Segal traces much of the failure of existing relief programs to negative public attitudes and opinions about the poor, and follows those prejudices through their expression in Congressional and bureaucratic inaction. This is an impressive documentation of the real problems of the poor in this country, and it should not be mistaken as just another "bleeding heart" apology for the down and out. Segal has a doctorate in economics from the George Washington University, several years experience in social welfare programs, and a pragmatist's instinct for digging out the data that gets to the heart of the matter.

2) Let Them Eat Promises, The Politics of Hunger in America, Nick Kotz (New York: Doubleday, Anchor Books) 1971 (272pp; $2.50).

Hunger did not emerge as a national political issue in this country until 1967 when two northern Senators, Kennedy of New York and Clark of Pennsylvania, toured Mississippi on a fact-finding mission for their Subcommittee on Employment, Manpower, and Poverty. From the beginning there was tremendous hostility to their investigation, not only from Southern politicians, but from the Department of Agriculture and the White House as well. This book is the story of how that political confrontation of the late 1960's came about and what effect it had on our national food programs. It is a depressing tale, disturbing in its recounting of the actual case histories of hunger and malnutrition among the poor in Mississippi, the Navajo in Arizona, and the unemployed coal miners in Kentucky. But it is equally upsetting in the unforgiving thoroughness with which Kotz documents incident after incident when, for political reasons, public officials turned their backs on the problems of hungry Americans. It is a useful book, both as an historical record of the situation prior to the War on Poverty, and as a general reminder of how insensitive the political system can be to human needs.

3) Hunger, USA, Citizen's Board of Inquiry (Boston, Massachusetts: Beacon Press) 1968 (96pp.; $1.95).

A tremendous amount of hostility surrounded the release of this report in 1968, culminating in an FBI investigation of the impoverished families whose stories had been used to document the Board's assertion that millions of Americans were without food. It is an emotional book, complete with pictures of emaciated, sad-eyed children, but it is also a factual accounting that provided the first real inventory of hunger in America. There is a chapter on Mississippi at the beginning, a detailed summary of bureaucratic non-response that infuriated the Senator from Mississippi and led to continued harassment of the Board and criticism of its report by numerous government officials. This is followed by an overview of hunger across the nation, with particular attention to the difficulties of collecting accurate information on the extent of hunger and poverty. A brief analysis of existing food and welfare programs is provided, along with a look at agricultural policy and the economic incentives that operate within the federal farm program. Finally, a series of recommendations based on the report are put forward, and some

additional documentation of the extent and location of chronic hunger areas in the U.S. is provided in the appendices.

4) Poverty in American Democracy, A Study of Social Power, Compaign for Human Development (Washington: United States Catholic Conference) 1974 (173pp.; $1.50) Available: U.S. Catholic Conference, 1312 Massachusetts Avenue, N.W., Washington, D.C. 20005.

Much of the documentation and monitoring of poverty and hunger in this country has been provided by various religious groups and organizations. There is a missionary tone to much of their literature, as the intent is not only to educate but to "call to action." This is true here, as it is in the following reference, *Poverty Profile USA.* In making that "call," however, the authors of both these volumes have condensed a tremendous and imposing amount of government statistics and reports into very readable and informative summaries of the problems this country faces in helping its poor. Special emphasis is directed in this volume to the psychology of poverty and powerlessness, especially in the context of social and governmental interactions. The prevailing political economy is examined, and a strong criticism is provided of the distribution of wealth and power in this country. All in all, this is a very valuable and informative discussion of a topic that is all too infrequently written and talked about

5) Poverty Profile USA, Mariellen Procopio and Frederick J. Perella, Jr. (New York: Paulist Press) 1976 (88pp.; $1.00).

The first edition of this study, published in 1972, filled a gap in the food literature by providing a readable, popular level summary of U.S. statistics on hunger, social and economic patterns, and government programs. Much of that data is updated in this revised edition, and the current social welfare programs are examined in an effort to document the continued existence of poverty in this country. It is a book designed to stimulate action, and the first chapter, "The Challenge of the Campaign for Human Development," is addressed to the need to involve more people in the struggle against poverty and hunger. Chapter 2, "How Bad It Is," documents the reality of poverty in terms of various standard statistical measures. Various programs designed to combat poverty are examined in Chapter 3, and Chapter 4 provides a look into "Who Are the Poor and Where Do They Live?" Finally the authors examine the question of what causes poverty and argue for a change in our fundamental system of ethics that would put the emphasis on the idea of "ours" rather than "mine." A bibliography is appended, along with some excerpts from the "1970 Decennial Census on Poverty."

6) Nutrition and Health, with an evaluation of nutritional surveillance in the United States, prepared by the staff of the Select Committee on Nutrition and Human Needs, United States Senate, 94th Congress, 1st Session, December 1975 (Washington: USGPO) 1975 (256pp.; $2.45) Available: Superintendent of Documents, USGPO, Washington, D.C. 20402

The premise of this background document is put forward in Senator McGovern's introduction: "Americans who can afford an adequate diet may not be getting one . . . for rich and poor alike are tempted daily by a food system striving to expand demand by tempting the palate with foods overloaded with fat, sugar, and salt, low in nutritive value, high in pleasure value. Our eating habits and the composition of our food have changed radically, but we do not have any detailed measure of what is happening to the nation's nutritional health."

An examination of U.S. eating habits is provided in the introductory section, "Eating in the Dark," with special attention to the diseases of overabundance, undernutrition, nutrition knowledge, and health. Chapter I, "Access to Individual Nutrition Assessment," examines the nutrition counseling system in hospitals, public health clinics, and nutrition referral services. Chapter II describes the need for, and the steps being taken to produce, a national nutrition assessment, and Chapter III examines the control of nutrition policy in terms of institutional roadblocks, and offers a set of recommendations for change. A bibliography is included, and a number of useful papers are reprinted in the appendix, including an extremely interesting study titled "Economic Benefits from the Elimination of Hunger in America."

7) Who Gets Food Stamps, committee print prepared by the staff of the Select Committee on Nutrition and Human Needs, United States Senate,

1 August 1975 (Washington: USGPO) 1975 (55pp.; $.75).

Controversy has always surrounded the food stamp program, but it escalated in the mid-seventies as unemployment rose and the number of people applying for and receiving food stamps increased dramatically. This is, in part, an answer to the public accusations that a lot of people are getting food stamps who shouldn't be, people whose incomes put them in the middle-class range, or whose applications to the program are fraudulent. More importantly, it is a good, brief summary of how the program got started, what kinds of criteria operate in determining eligibility for its benefits, how the program works, and who it really serves. There are brief descriptive summaries of the income of participating households, family size, and the work status of participants, and two sections addressed to the extent of fraud and error in the program. The profile that emerges is one that should quiet much of the criticism: "... 77 percent of food stamp recipients have incomes below $5,000 a year (before food stamp deductions), 92 percent are below $7,000; and nearly all earn less than $10,000.... In short, facts shown indicate that the food stamp program continues to be largely a low-income program serving primarily Americans who can least afford an adequate diet."

Food Additives

1) Use of Chemicals in Food Processing, Production, Storage and Distribution, Committee on Food Protection, Food and Nutrition Board, Division of Biology and Agriculture, National Research Council (Washington: National Academy of Sciences) 1973 (34pp.; $2.25) Available: National Academy of Sciences, Printing and Publishing Office, 2101 Constitution Avenue, Washington, D.C. 20418

Much of the literature on food additives has been alarmist, designed to warn the reader of the uncounted dangers that lurk in every food product on the market. To some extent, this is an effort to mitigate some of that criticism, and to put the whole matter of food chemistry "in perspective." It deals with the technological rationale for the use of chemicals in food, the problems that food chemistry has brought about, the research that might clear up some of the confusion, and the legislative measures that have been enacted to ensure the public safety. The first part of the report provides a brief look at some potential sources of incidental additives: pesticides, fertilizers, feed adjuvants and drugs, and packaging materials. The second part, "The Safe Use of Food Additives," is concerned with hazard versus toxicity, risk-benefit relation, chemical and physical properties, biological considerations, the role of industry in assuring safety, and the functions of federal and state agencies in monitoring foods. The section concludes: The preponderance of data concerning food additives confirms that they have been used safely, effectively, and to the benefit of consumers. The occasional actions taken to remove previously used additives, in the light of new data that limit their margin of safety, confirm the general effectiveness and stringency of the regulatory systems. There is no evidence that consumption of foods in which these substances and regulated additives were properly used has endangered human health. There are, of course, many experts who think that this is unjustified optimism, nonetheless it is a good reference to begin with, and should help moderate some of the strident criticism that occurs all too often in the popular literature.

2) Eater's Digest, the Consumer's Factbook of Food Additives, Michael F. Jacobson (New York: Doubleday and Co.) 1972 (260pp.; $2.50).

Of all the popular level books available on the subject of food additives, this is by far the most reasonable, informative, and reliable. Jacobson is a biochemist with considerable professional experience in the study of food additives, and he is also co-director of the Washington-based Center for Science in the Public Interest, a group with excellent credentials in the areas of consumer protection and environmental issues. For the most part, this, too, is an attempt to combat the continued spread of misinformation about food additives, but it has a definite bias toward the consumer and his interests. Jacobson takes a very common sense approach to the whole problem of selecting foods: "Consider not only the safety of an additive, but also the overall nutritional value of the food in which the additive is used. A food may contain a bevy of safe additives, yet still be a nutritional zero. Stay away from artificially colored and flavored foods. Avoid high-fat and high-sugar foods. Eat more whole grains, vegetables, fish, low-fat meat and dairy foods, fruits, nuts, and seeds." This same reasonable approach is taken throughout the

book. Jacobson first provides a review of food additives, including why they are used, and how they are tested. He then provides an alphabetical index of the most common additives, and provides a brief summary of what is known about the origin, use, and potential problems, if any, associated with each one. Finally, in "A Close-Up Look at Foods," Jacobson reviews the controversial matter of standardized foods and food labeling, and examines the particular standards that define fourteen common foods. There is a great deal of useful information here, all of it quite intelligible to the general reader, and it provides an excellent introduction to the whole topic of food additives.

3) Eating May Be Hazardous to Your Health, Jacqueline Verrett and Jean Carper (New York: Doubleday, Anchor Press) 1975 (229pp.; $2.95).

For the most part, this is not so much a book about food additives as it is about the government agency that is charged with regulating them, and the industries that depend on them to cut the costs of food production. Verrett, for 15 years a Food and Drug Administration scientist concerned with testing the effects of food additives and pesticides, provides an inside look at the FDA and at the economic and political considerations which greatly impede its performance as a consumer protection agency. Verrett begins by examining "What's Wrong with Your Food," particularly in terms of unnecessary and dangerous additives, some designed simply to conceal a lack of quality in the original product. She offers very strong criticism of the FDA decision-making process crediting it with enabling known dangerous substances to remain in our food for years without ever even warning consumers, and attributes much of this laxity to the "industry-government coalition," a relationship which encourages the protection of industry interests over the public interest. Details of this kind of abuse are provided in the second part of the book, "Five Case Histories of Non-protection," in which Verrett examines Red 2, nitrates and nitrites, drugs in meat, "incidential additives," like the PCB's, and the artificial sweeteners, cyclamates and saccharin. Verrett concludes by suggesting several ways in which consumers can take action against this abuse. A useful bibliography is appended.

4) The Chemical Feast, James S. Turner (New York: Grossman Publishers) 1970 (273pp.; $.95).

The Food and Drug Administration has come under increasing criticism over the years, and this is one of the most damaging reports ever to come out on it. Prepared by a summer staff member of Ralph Nader's Center for Responsive Law, this is a thorough indictment of the influence which private industry has come to wield over the agency and the threat to public health that FDA collusion and indecision has allowed to flourish. There are documented incidences here of known dangerous drugs and food additives being allowed to remain on the market at the insistence of the manufacturing industry and despite efforts by independent scientist and consumer groups to have the substances banned. At the heart of the problem, time after time, is the agency's tendency to protect the economic interests of the food and drug industry, even when the public health is at stake. Turner charges that the FDA has continually minimized the hazards of the chemical environment, overlooked the issue of undernutrition, given low priority to food poisoning, and ignored research findings in the dietary links to heart disease and stroke. All of the findings here are the product of an intense research effort, which included not only traditional library research, but extensive interviewing of officials within the FDA and related agencies. It is a revealing and disturbing exposé of the inabilities of the Food and Drug Administration to protect the American public from industry excess and carelessness.

5) A Consumer's Dictionary of Food Additives, Ruth Winter (New York: Crown Publishers) 1972 (235pp.; $3.95).

This is precisely what the title says it is: A dictionary of food additives designed for use by consumers. In very simple, straightforward, nontechnical language, Winter describes all the mysterious ingredients that are currently listed on food labels. For the most part, the entries are five to ten lines each, and provide a physical description of the additive, its derivation, use, and any health effects which are known to be associated with it. It's a useful and interesting reference to have, and should be on hand in the classroom as a resource for students who are interested in the food additives issue.

6) The Chemicals We Eat, Melvin Benarde (New York: American Heritage Press) 1971 (208pp.; $6.95).

Benarde takes a much broader look at food chemistry than is usual in the popular literature, and looks, not only at the chemicals that are added to foods during processing, preparation and storage, but at the inherent chemistry of food, and the toxic effects that can result from eating "natural foods." In "Why Chemicals in Food?", Benarde examines the overall issue of food additives, and details the good and bad reasons that have led, since Roman times, to the adulteration of foods. He then examines the popular belief that "if it's natural, it must be good," and elaborates on the inherent hazards of various foods, from cabbage and lima beans, to fresh tuna, mushrooms, and peanuts. All of this is done, not to frighten the reader, but to put the issue of chemicals in food in the perspective of the chemical nature of all living things, and to remind us that chemicals are not always the "foreign" substances that some food critics would have us believe them to be. Benarde then turns specifically to the matter of additives and goes through some of the more common ones, pointing out their uses, advantages, and disadvantages. The regulation of these substances is discussed in a separate chapter and, finally, Benarde looks at the food in our future, and the role that chemicals will play in extending and adapting our food supplies.

7) Consumer Beware! Your Food and What's Been Done to It, Beatrice Trum Hunter (New York: Simon and Schuster) 1971 (442pp.; $3.95).

Begun in 1965, the preparation of this book spanned a period in this country when controversies over the safety of various foods were almost a daily front-page happening. Hunter, who also authored *The Natural Foods Cookbook*, was one of the first "consumer advocates" to investigate the topic of food safety and government surveillance of food products, and to present her findings in a popular level book. It is a formidable and sometimes frightening account of carelessness, bad judgment, and corporate profiteering, focused on a series of "unholy alliances"—scientists with the food industry, regulating agencies with food producers, etc. It is also a good, basic introduction to the topic of food additives, the ways in which foods are altered to improve shelf-life, enhance flavor, or simply made to look a bit better to the consumer. A tremendous amount of research has gone into this account, and Hunter writes with obvious authority and familiarity with a whole range of controversial food topics. While it is mainly intended as a criticism of current food production and marketing techniques, it also offers a great deal of information on related topics, and should prove to be a valuable resource for the general reader.

Strategies for the Future

1) The Fields Have Turned Brown, Four Essays on World Hunger, Susan DeMarco and Susan Sechler (Washington: The Agribusiness Accountability Project) 1975 (139pp.; $5.00) Available: The Agribusiness Accountability Project, 1000 Wisconsin Avenue, N.W., Washington, D.C. 20007

The Agribusiness Accountability Project is a nonprofit, nonpartisan public interest group based in Washington, D.C., and sponsored by the Center for Community Change. Its reports have ranged across a broad spectrum of food problems, from consumer rights (Jim Hightower's, *Eat Your Heart Out*) to exposés of government blunders (Martha Hamilton's *The Great American Grain Robbery and Other Stories*). The are all part of the Project's continuing campaign to reassert the importance of the independent farmer and the dangers of big business in agriculture. This particular report is addressed to four aspects of world hunger: The Importance of Grain, The Food Aid Program, The Green Revolution, and Agribusiness Goes Abroad: Corporate Myths in a Hungry World. Each provides a strong critique of existing U.S. agricultural policy, and a call to put the needs of world hunger above the traditional goals of economic and political advantage. The villains in almost every instance described here are the U.S. Department of Agriculture and the large, multinational "agribusiness" corporations that deal on the international commodities market. Taken together, these four essays provide a provocative and fascinating indictment of the business-as-usual approach to world hunger.

2) World Food Problems and Prospects, D. Gale Johnson (Washington: American Enterprise Institute for Public Policy Research) June 1975 (Foreign Affairs Study #20; 83pp.; $3.00) Available: American Enterprise Institute for Public Policy Research, 1150 Seventeenth Street, N.W., Washington, D.C. 20036

D. Gale Johnson is Professor of Economics, Vice-President of the University, and Dean of the

Faculties at the University of Chicago. He has a long and impressive history of service on various food commissions, and has provided here, in very readable, straightforward terms, an analysis of the causes of the current food crisis and the kinds of options that should be examined to alleviate continued shortages into the future. It is an optimistic analysis, in that Johnson sees no limitations in resources or technology that would prevent the production of sufficient food for the world's population, but it is a cautious optimism tempered by the realities of global politics and economics. Large-scale food aid, he argues, is not the answer; rather, the emphasis must be on increasing production within individual countries to make them more self-sufficient. The background and support data for his argument are put forward in the first six chapters: Introduction and Summary, World Food Problems in Perspective, The Food Crisis of 1973 and 1974, Increasing Affluence as a Threat to the Poor, Are High Farm Prices Here to Stay?, and Grain Reserves and Price Stability. Finally, in the two concluding chapters, Johnson examines what we have learned, what kinds of steps can be taken to increase food production, the potential of population control, and the all-important issue of the political will, and how it affects our global behavior.

3) A Strategy for Plenty, the Indicative World Plan for Agricultural Development (New York: UNIPUB) 1970 (World Food Problems No. 11, Food and Agricultural Organization of the United Nations; 63pp.; $2.00) Available: FAO, 1776 F Street, Washington, D.C. 20437

The original report on which this summary is based runs to nearly 800 pages, complete with numerous charts, graphs, and statistical tables. It represents an effort to analyze the major issues which will confront world agriculture in the two decades ahead, and to offer suggestions for the national and international actions which could mitigate some of the problems that are projected to peak in 1985. In particular, it is directed to four regions of the globe: The Near East, South America, Africa south of the Sahara, and Asia and the Far East. While that report is an invaluable resource for the planner and agricultural analyst, it is far too detailed and technical for the general reader. Recognizing that, the FAO has prepared this brief summary booklet, designed to highlight the main issues raised in that report, its conclusions, and the proposed strategies for the future. It is an extremely interesting document, and fills an important gap in the food literature. It provides, in a clear, readable text, an overview of the agricultural problems of the developing world, complete with easy-to-read charts and graphs, and numerous pictures. It is an extremely useful resource, and one that should be quite useful as a reference document in the secondary school classroom.

4) The Politics and Responsibility of the North American Breadbasket, Lester R. Brown (Washington: Worldwatch Institute) October 1975 (43pp.; $2.00) Available: Worldwatch Institute, 1776 Massachusetts Avenue, N.W., Washington, D.C. 20036

This analysis of the world food situation is focused on two fairly recent developments: The depletion of U.S. surplus food stock reserves, which once reflected excess production capacity, and the increasing dependence of the entire world on North America for its food supplies. Brown views both of these developments as ominous portents of increasing global food insecurity. He begins by discussing the "North American Breadbasket," noting that Canada and the United States currently have unchallenged dominance as food exporter's to the world. The changing pattern of world grain trade is briefly reviewed, and Brown provides a very informative review of the food situation in the "Key Actors on the Global Scene": Japan, China, India, USSR, Brazil, OPEC, and the so-called Green Revolution countries, where population continues to overrun advances in food production. He then turns to one of the most disturbing problems in current agricultural practice, the downturn in grain yield per hectare, and examines both the possible causes for this development and the future prospects for a return to increasing productivity. He concludes that what all of these changes demonstrate is that "national food economies are highly integrated and interdependent; what that tells us is that it no longer makes sense to view food and agricultural policies in exclusively national terms." In the two concluding sections, Brown discusses "A Global Food Strategy" and "A North American Food Strategy," arguing in both the necessity for an increasing spirit of global interdependence, and the formulation of a cooperative global food strategy that would "restore some of the stability and security

to the world food economy, help control food price inflation, and improve the nutrition and health of the overnourished and undernourished alike." Specifically, he argues that "access to North American food supplies should be used as an incentive to encourage and assist countries to do their share in solving the food problem, and thereby to help avoid an unmanageable food crisis." It is a bold proposal in light of current food aid practice, but one that should stimulate some needed thinking and debate on this crucial topic.

5) Food Problems of Developing Countries: Implications for U.S. Policy, Hearings before the Subcommittee on International Resources, Food, and Energy of the Committee on International Relations, House of Representatives, 94th Congress, First Session, May 21, June 3 and 5, 1975 (Washington: USGPO) 1975 (350pp.; $3.10) Available: U.S. Superintendent of Documents, USGPO, Washington, D.C. 20402

This is the first in a series of hearings designed to "examine U.S. efforts to meet the problems of food shortages in developing countries, particularly those most seriously affected (MSA's) by the worldwide economic crisis, on immediate, medium, and long-term bases." It is focused on six critical issues: The impact of U.S. food aid policy on developing countries; U.S. follow-up to the World Food Conference; U.S. policy and programs regarding agricultural production assistance; food problems in and needs of developing countries; distribution of U.S. food aid and foreign currency uses; and the level of U.S. food aid. As is frequently the case with Congressional hearings, a tremendous amount of information has been collected and reprinted here, and it is presented in a setting which also enables the reader to get a feeling for the kind of political atmosphere that surrounds the efforts of voluntary agencies and private organizations to influence governmental policy. In addition to all the information brought out in the testimony, there is an extensive appendix that includes reprints of various newspaper articles, statistical summaries, report excerpts, and the text of related U.N. resolutions.

6) Beyond Dependency, The Developing World Speaks Out, edited by Guy F. Erb and Valeriana Kallab (Washington: Overseas Development Council) 1975 (252pp.; $3.95) Available: ODC, 1717 Massachusetts Avenue, N.W., Washington, D.C. 20036

The central question at the heart of all the essays collected here is a crucial one to an understanding of the world food situation: Is it feasible for the industrialized and the developing countries to restructure the international economy so that both sides gain? It is a question that requires an examination of all our global resources, their geographic distribution, and the forces which control their availability on the world market. This volume provides an especially interesting analysis of that question because it is written almost entirely by authors from the developing countries. It is divided into four sections. The first, "Self-Reliance and Interdependence," examines the kinds of changes which will be necessary to create a more effective and equitable interdependence between rich and poor nations. The second section, "Critical Problem Areas," provides a survey of the critical problems currently facing the developed countries (called "the North") and the developing countries ("the South"). These include the influence of the multinational corporations, foreign investment, population policy, and ocean issues. In part three, two essays are addressed to the major issues in the present debate between developed and developing countries, and to an examination of the history of those problems. Finally, part four consists of a collection of statements and declarations that document the North-South debate of the mid-1970's. It is an impressive volume, written from a perspective that we are rarely exposed to, and written with a sense of urgency and global awareness that will determine the shape of the "global bargains" that lie in our future.

7) Mankind at the Turning Point, The Second Report to the Club of Rome, Mihajlo Mesarovic and Eduard Pestel (New York: New American Library, Signet Books) 1974 (210pp.; $1.95).

To some extent this is a follow-up report to the Club's first book, *The Limits to Growth*. While it shares much of the alarmist tone of that first report, this is a much more optimistic look into the future, calling attention not only to the problems which lie ahead, but to their potential resolution. All of our finite resources—food, energy, raw materials, etc.—are dealt with here in terms of their projected lifetimes. A variety of scenarios, each reflecting a different set of possible circumstances

that will affect the supply and demand for various resources, have been fed into a computer program for analysis. This report is a summary of the patterns which that computer analysis shows. The picture for food is an especially ominous one and, while there is no universal agreement as to the validity of the Club's findings, their analyses do highlight the major components of the world food crisis. It is a fascinating, informative, and disturbing account, one that should be read carefully by anyone seeking to understand the potential severity of the future food situation.

Part II

READINGS FOR STUDENTS GRADES 9–12

Part II :

READINGS FOR STUDENTS: GRADES 9—12

An annotated bibliography of books and articles selected for students (Grades 9—12).

Basic General References

1) **The Global Food Shortage: Food Scarcity on Our Planet and What We Can Do About It**, Lila Perl (New York: Morrow Junior Books) 1976 (128pp.; $5.95).

A recent addition to the world food literature, this is a book written especially for high school students. It focuses on the food shortage as it relates to environmental and economic issues, and social, religious, and political problems. The text is divided into four sections, dealing with the population problem, ways in which to increase the food supply, the impact of the energy crisis, and the mechanisms for global food distribution. While it should be an especially appropriate resource for biology and social science classes, it is sufficiently well written and illustrated that it should serve as a useful resource to a wide spectrum of students.

2) **The World Food Crisis**, edited by Herbert L. Marx, Jr. (New York: The H.W. Wilson Co.) 1975 (213pp.; $8.95).

This is one volume (Volume 47, No. 6) in The Reference Shelf Series, and like the others it is essentially a reader, providing reprints of articles, book excerpts and addresses, in this case on the topic of world hunger. All of the journals represented in the reprints are familiar ones to the general reading public: *Fortune, Nation, U.S. News & World Report, The New York Times Magazine, Time, Saturday Review,* etc., and almost all are well within reach of the reading ability of high school students. They are grouped here under seven topics: Food: Challenge of the Seventies; Famine; The Green Revolution and Beyond; Food Supply vs. Population: A Solvable Riddle?; The Role of the United States; and The Paths Ahead. Authors represented include Lester Brown, Garrett Hardin, C.P. Snow, Norman Cousins, and Frances Moore Lappé. This would be an excellent mechanism to introduce the topic of food and hunger into the classroom, and it could also serve as a very useful background document for an individual student interested in pursuing this topic on his or her own.

3) **This Hungry World**, Ray Vicker (New York: Charles Scribner's Sons) 1975 (270pp.; $9.95).

Ray Vicker supervises the London Bureau of the *Wall Street Journal* and has written numerous articles and several popular level books on various international issues. This particular book is about malnutrition and famine—where it occurs, what it is like, why it happens, and what can be done about it. For the most part, it is a first person account of the kinds of suffering that Vicker has witnessed on his journeys around the world, beginning with a graphic description of the consequences of recent drought in Africa. He then moves to a recounting of the events of the 1974 World Food Conference in Rome, pointing out the kinds of political, economic, and humanitarian concerns which all impact on the global response to the hunger crisis. The remainder of the book deals with an examination of the causes of famine: the lack of arable land, dramatic changes in weather patterns, the decreasing world fish catch, the complexities of controlling world population growth, and the agricultural inefficiency of the Third World countries. All of this is presented in a very readable, almost diary-like style which should be appealing to students. Vicker concludes on an optimistic note, pointing out the successes that China has had with agriculture improvements, and that Egypt has achieved in controlling population growth.

4) **The Geometry of Hunger**, D.S. Halacy, Jr. (New York: Harper and Row) 1972 (280pp.; $9.95).

Halacy is an experienced writer of books for young people and has to his credit a long list of titles that are essentially translations of complex world issues and problems into terms that students can understand and feel comfortable reading. He begins this discussion of world hunger with a very informative and thought-provoking discussion of the history of population growth, and the problems that increasing numbers of people bring to bear on the world's limited resources. One of those resources, of course, is food, and Halacy focuses

the remainder of his discussion on various aspects of the food issue: nutrition, agriculture, and the promise of the "Green Revolution." He concludes with a description of the kinds of new foods and farming techniques which lie in the future, and offers some stimulating speculation as to what the next few decades will be like. There are illustrations and photographs throughout the text, along with some very easy-to-read graphs and charts. It is likely that this discussion will appeal most to the science-oriented student, but it should be quite intelligible and informative reading for anyone at the high school level.

5) **Give Us This Day . . .**, a report on the world food crisis by the staff of the *New York Times* (New York: Arno Press) 1975 (336pp.; $10.00).

The sixty-seven articles that make up this collection have all appeared in the *New York Times* during the past two years. Each deals briefly with a particular aspect of the world food crisis—the dimensions of the crisis, geographical areas of greatest concern, food supply and demand, the fertilizer crisis, food from the sea, potential solutions to the shortage, the politics of food, and the 1974 world food crisis. All of the essays are quite readable, and several are accompanied by photographs. While there is nothing explicitly on nutrition, most of the other topics that comprise the food issue are included, making this a good general introduction for high school students.

6) **Race Against Famine**, Melvin A. Benarde (Philadelphia: Macrae Smith Co.) 1968 (97pp.; $4.75).

Hunger, malnutrition, and social unrest caused by increasing population and limited food supplies are documented here with statistics and photographs. Benarde describes the food problem as being literally a race against time in which it might be best to begin by trying to change peoples' attitudes and motivation, because alternatives, like dietary supplements, food from the oceans, the implementation of new technology, and efforts to change dietary patterns and cultural beliefs may take more time than we can spare.

Nutrition and Malnutrition

1) **Nutrition Scoreboard**, Your Guide to Better Eating, Michael F. Jacobson (New York: Avon) 1975 (213pp.; $1.75).

Prepared by the Director of the Center for Science in the Public Interest, this is a handy, simplified guide to distinguishing between good food and junk food. Jacobson has devised a numerical rating system, which provides, at a glance, a rating of the nutritional value of a tremendous range of foods, from beef liver, at a +172, to soda pop, at a -92. A wealth of background information on nutrition is provided in the opening chapters, "The American Way of Eating" and "Rating the Nutritional Value of Foods." This latter chapter contains separate sections on protein, fat, vitamins, trace minerals, etc. In Chapter III the author explains what the Scoreboard System does not cover: Food additives, foods for babies, etc. The limitations of the system are described, and the nutritional ratings of various foods (soups, dairy products, vegetables, fresh fruits, bread, snacks, desserts, etc.), many of them by brand name, are provided. Sample diets are provided, and the reader is encouraged to rate his own diet in terms of its nutritional value. (A condensation of this book, *Food Scorecard*, is reviewed in Part II, Grades 5-9, #2.)

2) **Let's Talk About Food**, edited by Philip L. White, Nancy Selvey, American Medical Association (Acton, Massachusetts: Publishing Sciences Group) 1974 (282pp.; $6.95).

Subtitled "answers to your questions about food and nutrition," this is an excellent resource for answers to some of the most commonly asked questions about the value of various foods, dietary practices, food myths, food storage and preparation, food safety, and consumer protection. Written on the level of a good newspaper or magazine nutrition column, it is designed to provide the reader with the most current information available on a wide range of food topics. It is a useful, informative book to read through, and it should serve as a good classroom reference for students with questions about particular foods or eating habits.

3) **Food Facts for Young People**, Pauline Arnold and Percival White (New York: Holiday House) 1968 (256pp.; $4.50) illustrated by Gilbert Etheredge.

A potpourri of information on food directed

specifically to teenagers. Subjects treated include dietary needs, food fads and fallacies, world population, food supply, and new sources of food. In addition there is a chapter on buying, storing, and cooking foods. While no one subject is treated in great detail, this book can serve as an introduction for further study. It includes charts, tables, graphs, glossary, and a bibliography.

4) **Natural Foods** (A Concise Guide), Barbara and D.X. Fenten (New York: Franklin Watts) 1974 (66pp.; $3.95) illustrated by Howard Berelson.

Clear definitions of organic, natural, and health foods are contained in this brief book which calls careful attention to the additives present in many foods. There is also a brief rundown on food groups, vitamins, and minerals, with suggestions for improved nutrition by eating natural foods. Commercial brands of foods are recommended, as well as places to buy natural foods throughout the U.S. A list of additional references is included.

5) **Food Facts for Teenagers**, Margaret Belais Salmon (Springfield, Illinois: Charles C. Thomas) 1965 (129pp.)

Although it has been around for more than a decade now, this is still a good, common sense eating guide for teenagers. It includes brief, informative answers to common questions and misconceptions about various foods and eating patterns, along with a readable, uncomplicated discussion of basic nutrition. Separate chapters are addressed to: Food Misinformation, The Magic Five (Basic Foods), Vitamins and Minerals, The Truth About Calories, So You Want to Lose Weight, So You Want to Gain Weight, For Girls Only, For Boy Only, and Party Foods. Several recipes using the basic foods are appended, and a number of graphs, tables, and illustrations are included. It's obviously a somewhat dated reference, but still a very useful one and available in most public libraries.

Food Production and Distribution

1) **Hunger: Man's Struggle to Feed Himself**, John Scott (New York: Parent's Magazine Press) 1969 (180pp.; $4.50).

John Scott has been a special correspondent for *Time* magazine since 1962, and has authored several popular level books during that period. In this one, he takes a slightly different approach to the world hunger problem than is typical of the general literature, and focuses, not on the population/food interface, but rather on the issue of man's mismanagement of the environment: "The task now lies in utilizing resources in an orderly manner to produce food and distribute it where needed." Ten photo essays illustrate the text: The Undernourished; The Necessary Balance—Soil and Water; Fertilizer; The Corn Story; What Price, Rice?; The Wonder of Wheat; Combatting Pests; Many Ways to Net a Catch; Bread—The Basis; and Food Around the World. Basically, this is a book on food production and distribution, with chapter discussions ranging over everything from rainfall, soil science and crop pests, to the basics of nutrition and food marketing. It is especially well-indexed, and should be a helpful classroom reference.

2) **Man and His Environment: Food**, Lester R. Brown and Gail W. Finsterbusch (New York: Harper and Row) 1972 (208pp.; $6.50).

This is a brief, non-technical account of the history of food production, from the origin of agriculture, to the new food technologies, and "green revolution" practices of today. It provides a good, readable introduction to a variety of food issues: The magnitude and geography of malnutrition, the agricultural breakthroughs accomplished by increased mechanization, the extent of the energy input to food production, future sources of protein, and the environmental consequences of steadily increasing food production, future sources of protein, and the environmental consequences of steadily increasing food production. For the most part, the text is descriptive, with very little in the way of background data, graphs, or charts. Suggested readings are included at the end of each chapter, many of them taken from *Scientific American.*

3) **The Food in Your Future: Steps to Abundance**, Keith C. Barons (New York: Van Nostrand Reinhold Co.) 1975 (180pp.; $7.95).

Written by a well-known food technologist, this brief, well-illustrated book provides an interesting and informative review of our total food production and distribution system. Special attention is directed to the issue of food prices in a discussion that deals with the complexities of farm economics and incentives that provides a very sympa-

thetic portrayal of the plight of the modern farmer. All of the major issues in the current food crisis, from the use of pesticides and fertilizer, to the problems of protein production and the realities of the Green Revolution, are dealt with here, clearly, concisely, and with a commendably balanced approach.

4) **Plants that Feed the World**, Rose E. Frisch (New York: Van Nostrand Reinhold Co.) 1969 (104pp.; $3.95) illustrated by Denny McMains.

The historical, scientific, and nutritional importance of flowering plants are considered in the first section of this book. Three plants from both the Old and New World are singled out for special discussion. Food needs and how they are met throughout the world are discussed in the second section, which also briefly mentions efforts to develop new protein foods. Five project ideas are given, as well as a list of Agricultural Experiment Stations in each state. Simple sketches, photographs, glossary, and an index are included.

5) **The Energy We Eat**, Chapter 4 (pp. 37-60) in *The Fires of Culture: Energy Yesterday and Tomorrow*, Carol and John Steinhart (North Scituate, Massachusetts: Duxbury Press) 1974 (273pp.; $4.95).

There are several approaches to take in analyzing the efficiency of the food production system, and one of the most interesting and revealing in the 1970's has been to look at the amount of energy expended in the overall process. This brief chapter provides a good, non-technical summary of the energy intensity of current farming methods, and of the impact that it has on our economy. The Steinharts look first at the productivity of the individual farmer, and contrast that with the productivity of the large, mechanized farms, which rely heavily on fossil fuels for power. A brief description is provided of the balances that operate in an ecosystem, and of how modern farming practices impact with that pattern. All of this points to the fact that food in the U.S. is expensive, so much so that many of our current techniques are really not suitable for export to developing nations with limited funds. There are charts and graphs provided to support this, and the Steinharts carry their argument through the entire food system, from production to marketing and consumption patterns. Designed as an introductory college text, this should be quite readable and useful for the more advanced high school student.

Food and Culture

1) **Food: Fact and Folklore**, Alice Jenner (McClelland and Stewart Limited, 25 Hollinger Road, Toronto 374, Canada) 1973 (98pp.; $6.50). Also available through International Publications Service, 114 E. 32nd St., New York, N.Y. 10016

This is one in a series of Curricula Resource Books Series designed to provide students with basic reference materials from which they are encouraged to draw their own conclusions and analyses. There are eight main topics: Social and Cultural Influence, Religious Influence, Economic Consideration, Disease and Malnutrition, Foodways, Nutrition Education in Action, Food and the Quality of Life, and Food for the Future. Each of these sections contain a series of brief readings, ranging from excerpts from the Bible, speeches, surveys, and textbooks to cookbooks, cartoons, and the telling of unusual personal experience with unfamiliar food customs. Questions are included at the end of each reading, and brief descriptive material is provided to put the reading in a broader context.

2) **The Foxfire Book**, edited by Eliot Wigginton (New York: Doubleday) 1972 (384pp.; $4.50).

This is a fascinating book, written entirely by students as part of their course work in an English program designed to stimulate their interest in writing and organizing, and to make a record of the cultural history of the Appalachian region. It has sections on everything from hog dressing and log cabin building, to mountain crafts and foods, snake lore, faith healing, and "other affairs of plain living." All of this is written in a very appealing, conversational style which conveys not only the fascinating details of a culture that echoes back to the pioneer days in this country, but manages to convey much of the spirit and humor and warmth of the people themselves, many of whom make up those statistics on the hungry and impoverished in this country. A great deal of it is focused on food and food habits, for this is, to some extent, still a culture where the simple necessity of getting enough to eat each day remains a difficult and time-consuming proposition. There are numerous

photographs throughout, depicting everything from how to skin a raccoon and dress a hog, to soapmaking and basket weaving. It is a delightful book, fun to read, and educational in the best sense of the word.

3) **Foods America Gave the World**, A. Hyatt Verrill (Boston: L.C. Page and Co.) 1937 (289pp.; out of print, but a standard in most public libraries).

Subtitled, "the strange, fascinating and often romantic histories of many native American food plants, their origin, and other interesting and curious facts concerning them," this is a delightful old book, full of fascinating tales to capture the interest and imagination of students. It is an excellent source to turn to for answers to questions about the origins of many familiar American foods, from corn, squash, tomatoes, and pumpkins, to peanuts and the Thanksgiving turkey. There are numerous illustrations, mostly line drawings scattered throughout the text, and a glossary of American foodplants, which describes and provides the derivation of over one hundred foods, is appended.

4) **The World Atlas of Food**, J. Grigson, contributing editor (New York: Simon and Schuster) 1974 (319pp.; $29.95).

This is a beautifully illustrated book, clearly aimed at the "coffee table" market as well as the food connoisseur. It is full of fascinating tales about the historical and geographic origins of food, and provides a wealth of information about regional and national food habits. There is also quite a bit of information in pictures and text, describing the preparation of various foods, and a large part of the book consists of instructions for preparing an excellent selection of special dishes from all over the world. There are many ways in which this could be a useful reference, beyond being just delightful, informative reading. It is a good source of interesting facts to spice up a classroom discussion on food and culture, and it is also the kind of book that students would enjoy perusing at their leisure.

Hunger in the U.S.

1) **Still Hungry in America**, Robert Coles (New York: New American Library) 1969 (115pp.; $2.95).

This is a shocking, depressing book that depicts in a series of black and white photographs and brief text—some of it in the words of those pictured—the real price we pay in allowing hunger and poverty to continue in our country. It is a very impressionistic account, designed to disturb as much as to inform, but it is unlikely that anyone having read and looked through it, will remain blasé about this pressing national problem. It is a book that will stimulate discussion and interest, and that is easily within reach of the reading ability of most high school students.

2) **Hunger, USA**, Citizen's Board of Inquiry (Boston, Massachusetts: Beacon Press) 1969 (96pp.; $1.95).

A tremendous amount of hostility surrounded the release of this report in 1969, culminating in an FBI investigation of the impoverished families whose stories had been used to document the Board's assertion that millions of Americans were without food. It is an emotional book, complete with pictures of emaciated, sad-eyed children, but it is also a factual accounting that provided the first real inventory of hunger in America. There is a chapter on Mississippi at the beginning, a detailed summary of bureaucratic non-response that infuriated the Senator from Mississippi and led to continued harassment of the Board and criticism of its report by numerous government officials. This is followed by an overview of hunger across the nation, with particular attention to the difficulties of collecting accurate information on the extent of hunger and poverty. A brief analysis of existing food and welfare programs is provided, along with a look at agricultural policy and the economic incentives that operate within the federal farm program. Finally, a series of recommendations based on the report are put forward, and some additional documentation of the extent and location of chronic hunger areas in the U.S. is provided in the appendices.

3) **Poverty Profile USA**, Mariellen Procopio and Frederick J. Perella, Jr. (New York: Paulist Press) 1976 (88pp.; $1.00).

The first edition of this study, published in 1972, filled a gap in the food literature by providing a readable, popular level summary of U.S. statistics on hunger, social and economic patterns, and government programs. Much of that data is

updated in this revised edition, and the current social welfare programs are examined in an effort to document the continued existence of poverty in this country. It is a book designed to stimulate action, and the first chapter, "The Challenge of the Campaign for Human Development," is addressed to the need to involve more people in the struggle against poverty and hunger. Chapter 2, "How Bad It Is," documents the reality of poverty in terms of various standard statistical measures. Various programs designed to combat poverty are examined in Chapter 3, and Chapter 4 provides a look into "Who Are the Poor and Where Do They Live?" Finally, the authors examine the question of what causes poverty and argue for a change in our fundamental system of ethics that would put the emphasis on the idea of "ours" rather than "mine." A bibliography is appended, along with some excerpts from the "1970 Decennial Census on Poverty."

4) **Let Them Eat Promises,** The Politics of Hunger in America, Nick Kotz (New York: Doubleday, Anchor Books) 1971 (272pp.; $2.50).

Hunger did not emerge as a national political issue in this country until 1967 when two northern Senators, Kennedy of New York and Clark of Pennsylvania, toured Mississippi on a fact-finding mission for their Subcommittee on Employment, Manpower, and Poverty. From the beginning there was tremendous hostility to their investigation, not only from Southern politicians, but from the Department of Agriculture and the White House as well. This book is the story of how that political confrontation of the late 1960's came about, and what effect it had on our national food programs. It is a depressing tale, disturbing in its recounting of the actual case histories of hunger and malnutrition among the poor in Mississippi, the Navajo in Arizona, and the unemployed coal miners in Kentucky. But it is equally upsetting in the unforgiving thoroughness with which Kotz documents incident after incident when, for political reasons, public officials turned their backs on the problems of hungry Americans. It is a useful book, both as an historical record of the situation prior to the War on Poverty, and as a general reminder of how insensitive the political system can be to human needs.

Food Additives

1) **The Chemicals We Eat and Drink,** Dr. Alvin Silverstein and Virginia Silverstein (Chicago: Follett Publishing Co.) 1973 (112pp.; $5.95).

An excellent, documented discussion about the beneficial and harmful chemicals in our food. Treatment is balanced throughout, especially regarding recent controversies surrounding cyclamates and nitrites. Government and manufacturer's testing programs and regulations are explained, as well as how we might produce food in sufficient quantity and quality, without introducing harmful side effects. It is indexed and illustrated with black-and-white photographs.

2) **The Body Breakers,** William Eblen and Vivian Ellison (West Haven, Connecticut: Pendulum Press) 1972 (58pp.; $.95).

Part of the "Total Education in the Total Environment" Ecology Series, this is a book about "internal pollution" and the physical disruptions that can occur in the delicate balance of our own bodies when we eat the wrong kinds of substances. There are separate chapters on house and garden chemicals (oven cleaners, paint removers, detergent, hair sprays, etc.), poisons in our foods (certain additives, colorings, etc.), polluted fish and drugged livestock, the devitalized nature of food made from refined flour, chemicals in the air (pollutants, pesticides, and radiation), and "The Common Body Breakers" (cigarettes, alcohol, and drug abuse). A final chapter provides a list of suggested actions that the individual can take to protect himself from these various hazards. All of this is written in a very straightforward, easy-to-read style that should make this book appealing to a wide range of high school students.

3) **Eating May Be Hazardous to Your Health,** Jacqueline Verrett and Jean Carper (New York: Doubleday, Anchor Press) 1975 (229pp.; $2.95).

For the most part, this is not so much a book about food additives as it is about the government agency that is charged with regulating them, and the industries that depend on them to cut the costs of food production. Verrett, for 15 years a Food and Drug Administration scientist concerned with testing the effects of food additives and pesticides, provides here an inside look at the FDA and the economic and political considerations which

greatly impede its performance as a consumer protection agency. Verrett begins by examining "What's Wrong with Your Food," particularly in terms of unnecessary and dangerous additives, some designed simply to conceal a lack of quality in the original product. She offers very strong criticism of the FDA decision-making process, crediting it with enabling known dangerous substances to remain in our food for years without ever even warning consumers, and attributes much of this laxity to the "industry-government coalition," a relationship which encourages the protection of industry interests over the public interest. Details of this kind of abuse are provided in the second part of the book; "Five Case Histories of Nonprotection," in which Verrett examines Red 2, nitrates and nitrites, drugs in meat, "incidental additives," like the PCB's, and the artificial sweeteners, cyclamates and saccharin. Verrett concludes by suggesting several ways in which consumers can take action against this abuse. A useful bibliography is appended.

Strategies for the Future

1) **The Politics of World Hunger**, Paul and Arthur Simon (New York: Harper's Magazine Press) 1973 (249pp.; $10.00).

Written by two brothers, one a newspaper publisher and college professor, and the other a Lutheran clergyman, this is a particularly sensitive treatment of the dimensions of world hunger. In Part I, "Hunger, Population, and Poverty," the authors examine the dimensions of world hunger, and provide detailed accounts of typical living conditions among the poor around the world. In Part II, "The Way Out," the Simons investigate the many facets of the struggles faced by developing countries. Individual sections are addressed to the discussion of agricultural development, industrial development, trade, and economic development. This is followed by a section on U.S. policy which includes a look at our trade practices, the role of international corporations, foreign aid, and the pervasive influence of our military arms program. Finally, in "A Program for Action," the authors provide a proposal for global development, and a close look at the way in which "politics as usual" affects the world food supply.

2) **How Will We Feed the Hungry Billions?** Food for Tomorrow's World, Nigel Hey and the editors of Science Books Associates (New York: Julian Messner) 1971 (191pp.)

This is a hopeful exploration of ways in which the hungry billions might be fed: the green revolution, irrigation and weather modification, improving and increasing cultivable land, obtaining food from the sea, and creating new sources of protein. Also stressed is the need for the western world to readjust its thinking, and also consider the environmental effects of attempting to turn the Earth's dwindling resources into food. Research efforts and the specific problems in many countries are discussed and lists of further readings and resource organizations are appended.

Part III

READINGS FOR STUDENTS PRESCHOOL–GRADE 9

Part III:

READINGS FOR STUDENTS: PRESCHOOL—GRADE 9

An annotated bibliography of books and articles selected for students (Preschool—Grade 9)

Grades 6-9

1) **Race Between Food and People**, Charles R. Joy (New York: Coward-McCann) 1961 (121pp.)

While some of the information in this book on population and food production is dated, it nevertheless is a comprehensive survey of the many factors—historic, economic, and political—involved in producing an adequate, nutritious food supply for the world's population. The author relies heavily on his experience in and knowledge of international relief programs, such as Food for Peace, to combat starvation. He devotes considerable attention to technological promise and problems of food production, but a single message dominates throughout: We must meet the challenge of providing food, and therefore peace in the world, or face the alternatives of hunger and unrest (war). Black-and-white photos, charts, graphs, and an index are included.

2) **Slumps, Grunts, and Snickerdoodles**, Lila Perl (New York: The Seabury Press) 1975 (125pp.; $7.95) illustrated by Richard Cuffari.

Subtitled, "What Colonial America Ate and Why," this book presents a well-written historical perspective on nutrition and dietary habits in the New England, Southern, and Middle colonies. Thirteen authentic recipes are included, such as ones for Red Flannel Hash and Hushpuppies. It is indexed and illustrated.

3) **This Hungry World**, Elizabeth S. Helfman (New York: Lothrop, Lee and Shepard Co.) 1970 (160pp.)

This is a very serious, well-written book on hunger in the U.S. and throughout the world in which the causes and possibilities for alleviation through wise use of limited resources are discussed. The author's optimism remains quite guarded, even in considering the Green Revolution, the World Food Program of the U.N. Food and Agricultural Organization, and the U.S. Department of Agriculture Food Stamp Program. Her conclusion is that we are all together on this Earth, and while the severity of the problem may be removed geographically, the responsibility is close at hand. It is illustrated with black-and-white photographs and suggestions for further reading are included.

4) **Food for People**, second revised edition, Sarah R. Riedman (New York: Abelard-Schuman) 1976 (228pp.; $6.95) illustrated by Robert McGlynn.

In a clear-cut fashion, the author discusses the many aspects of nutrition and food supply, from the needs and processing of foods by the body, to the problems of malnutrition among the affluent as well as the poor. There is a good deal of historical background presented along with descriptions of more recent events, such as the 1974 World Food Conference in Rome. It is a highly worthwhile book for its comprehensiveness and objectivity, especially in terms of presenting the conflicting views of "experts," and the technology to meet the goal of providing food for *all* the world's people. Suggestions for further reading and an index are included.

5) **The Miracle of Vitamins**, Doris Faber (New York: G.P. Putnam's Sons) 1964 (158pp.; $5.00).

A *Science Survey Book*, this traces the experiments and discoveries regarding food composition and dietary needs, with specific emphasis on individual vitamins. Vitamin deficiency diseases such as scurvy, vitamin enrichment, and natural and synthetic vitamins are among the topics discussed in detail. No definitive statement about who needs how much of any particular vitamin is offered; the need for further research is stressed. A list of agencies offering nutrition information, a major vitamin chart, bibliography, and index are included.

6) **Our Hungry Earth**, The World Food Crisis, Laurence Pringle (New York: Macmillan Publishing Co.) 1976 (119pp.; $6.95).

An excellent examination is provided here of all the aspects of the world food crisis—the situation in developing countries, the role of more affluent

nations, nutrition and malnutrition, and the population explosion. Of particular note is a fine appraisal of the problems and promises of the Green Revolution and other agricultural advances. There is judicious use of worldwide statistics and theories of experts. According to the author, we know what must be done, and we must make a firm commitment to doing it. A glossary and suggestions for further reading are supplied.

Grades 5-8

1) **The New World of Food**, Alfred Lewis (New York: Dodd, Mead, and Co.) 1968 (79pp.; $4.50).

An 11-chapter indexed book which examines the two "worlds" of food—extreme abundance and scarcity. Among the topics included are: Techniques to Increase the Quantity and Quality of Food Production, Food as Fuel for the Body, and Proper Nutrition.

2) **Food Scorecard**, Wendy Wilson and Michael Jacobson (Washington: Center for Science in the Public Interest) 1974 (32pp.; $.35).

Essentially an adaptation of *Nutrition Scoreboard* (See Part I, Nutrition and Malnutrition, #9) this provides a discussion of nutrition and food categories with "scorecards" for various foods, especially snack items. It is well illustrated, easy to read, and full of helpful information.

3) **Eating and Cooking Around the World**, Erick Berry (New York: The John Day Co.) 1963 (96pp.; $3.95).

The environmental and cultural reasons for varied eating and cooking customs around the world are explained in this 11-chapter book. People are categorized on a continuum: Hunters to herdsmen to farmers to city dwellers. It is indexed and illustrated with black-and-white photographs.

4) **The Wonderful World of Food**, John Boyd Orr (New York: Garden City Books) 1958 (69pp.)

This is an intriguing book, full to overflowing with colorful illustrations, and bound to capture the interest and imagination of most young readers. Though obviously somewhat dated by events of the past two decades, this still provides an excellent introduction to a whole range of food topics, from food and culture, to food production, marketing, diet and health, and world hunger. The text, particularly the chapters dealing with early man and his food habits, is quite readable and informative. This should prove to be a very useful classroom reference, particularly as a resource for student projects.

Grades 3-6

1) **The First Book of Food**, Ida Scheib (revised by Carole E. Welker) (New York: Franklin Watts) 1974 (87pp.; $3.90) illustrated by Robert Byrd.

This provides a comprehensive look at how foods are grown, processed, and preserved. The nutritional value of foods are discussed, including recent labeling regulations. Factual information is blended skillfully with clever illustrations, anecdotes, and eating habits around the world.

2) **The Food You Eat**, John S. Marr (New York: M. Evans and Co.) 1973 (47pp.; $3.95).

Nutrients contained in a variety of foods and the body's need for a balance of them are clearly explained. The digestive system (organs and processes) and effects of dietary deficiencies are also treated with some helpful illustrations. Charts of nutrient breakdowns for selected foods are provided.

3) **What Plants Produce**, Martin J. Gutnik (Chicago: Childrens Press) 1976 (43pp.; $6.60) illustrated by Sam Shiromani.

Simple guided experiements to illustrate that plants make oxygen and carbohydrates (starch and sugar). Terms are defined well in a separate section; adult supervision is needed for the experiments.

4) **How Plants Make Food**, Martin J. Gutnik (Chicago: Childrens Press) 1976 (45pp.; $6.60) illustrated by Sam Shiromani.

Carefully explained experiments for investigating how plants use raw materials (carbon dioxide and water) and energy (light) to make food. Equipment, procedures, and terminology are specified.

5) **How Plants Are Made**, Martin J. Gutnik

(Chicago: Childrens Press) 1975 (43pp.; $6.60) illustrated by Sam Shiromani.

A good introduction to understanding photosynthesis with step-by-step investigations of plant structure—cells, tissue, and roots. Illustrations and a glossary aid in this clear treatment of the subject.

Grades 1-4

1) **How To Eat a Poem and Other Morsels**, selected by Rose H. Agree (New York: Random House) 1967 (87pp.; $4.99) illustrated by Peggy Wilson.

A compilation of lighthearted poems, rhymes, and jingles on food, organized into four categories: soup to nuts, snacks, tutti-frutti, and manners. Selections, indexed by first lines, include those by Lewis Carroll, Edward Lear, Eleanor Farjeon, Rachel Field, and also Mother Goose.

2) **Seeds and More Seeds**, Millicent E. Selsam (New York: Harper and Row Publishers) 1959 (60pp.; $3.95) illustrated by Tomi Ungerer.

An illustrated I-can-read science book which presents Benny, a "seed-happy boy," and his discovery, through experiments, of varieties of seeds and plants that grow from them.

3) **Stone Soup**, Marcia Brown (New York: Charles Scribner's Sons) 1947 (41pp.; $1.25).

Warm, earth-tone illustrations highlight this tale of three soldiers who cleverly charm some peasants out of hoarding their food, and into making a soup supposedly just with stones.

4) **Food Is for Eating**, Illa Podendorf (Chicago: Childrens Press) 1970 (47pp.; $5.25) illustrated by Margrit Fiddle.

This book deals with learning about foods through all five senses, with emphasis on classifying tastes—from sweet to bitter, and odors— from fruity to burned. Simple descriptions are woven into a "guessing game" format.

5) **Fresh, Canned, and Frozen**, Food From Past to Future, William Wise (New York: Parents' Magazine Press) 1971 (64pp.; $4.59) illustrated by Shelley Fink.

This book notes the variety and abundance of food in America today and the needs which must be met worldwide. It traces historically how food was obtained and preserved, how natural phenomena affected food supply, and how diets became diversified.

Grades K-3

1) **Blueberries for Sal**, Robert McClaskey (New York: The Viking Press) 1948 (55pp.; $.95).

Sal and her mother are collecting berries to can for next winter; a bear and its cub are also "storing-up" for their hibernation. An amusing mix-up occurs as Sal becomes busier eating the berries than collecting them. Effective illustrations, done solely in blue.

2) **Bread and Jam for Frances**, Russell Haban (New York: Harper and Row Publishers) 1964 (31pp.; $.95).

For Frances, an endearing little badger, bread and jam is the *best* and only thing to eat. Eventually she declares: "What I am, is tired of jam," and she begins to appreciate different kinds of food, without having been pressured by her parents. The message is clear in this book, but it is presented easily and enjoyably.

3) **Green Grass and White Milk**, Aliki Brandenberg (New York: Thomas Y. Crowell Co.) 1974 (33pp.; $4.50).

One of the Let's-Read-And-Find-Out Science Books, this book is an easy-to-read story of how a cow produces milk, how milk is processed in a dairy, and how dairy products are made from milk. Instructions for making butter and yogurt are supplied.

4) **Hailstones and Halibut Bones**, Mary O'Neill (New York: Doubleday and Co.) 1961 (59pp.; $4.50) illustrated by Leonard Weisgard.

A collection of twelve poems designed to evoke sensory moods and "pictures" of colors. Descriptions include references to food: "yellow is the cream on top of jersey milk, dandelions and daisy hearts, custard pies and lemon tarts." Good for exploring the "meaning" of colors—both concrete and abstract.

Preschool

1) **Blue Bug's Vegetable Garden**, Virginia Paulet (Chicago: Childrens Press) 1973 (31pp.; $5.25) illustrated by Donald Charles.

Blue Bug searches for his favorite vegetable in a strikingly colorful garden. A fine book for introducing young children to vegetable names, learning which grow above and below ground, and also for presenting spatial concepts and colors.

2) **Plants Give Us Many Kinds of Food**, Jane Beek Moncure (Elgin, Illinois: The Child's World) 1975 (24pp.) illustrated by Vera K. Gohman.

A simple introduction, with clear, colorful illustrations of the seeds, leaves, roots, fruits, and grains that people and animals eat.

Appendix A:
A Guide to Films

APPENDIX A

A Guide to Films

Organizations Which Produce and/or Recommend Films

American Friends Service Committee
15 Rutherford Place
New York, New York 10003

Catholic Relief Service
1011 First Avenue
New York, New York 10022

Church World Service
Room 626
475 Riverside Drive
New York, New York 10027

CROP
Box 968
Elkhart, Indiana 46514

Friendship Press
Room 772
475 Riverside Drive
New York, New York 10027

PCUS
Task Force on World Hunger
341 Ponce de Leon Avenue, N.E.
Atlanta, Georgia 30300

U.S. Committee for UNICEF
331 East 58th Street
New York, New York 10016

American Freedom from Hunger Foundation
1625 Eye Street, N.W.
Suite 719
Washington, D.C. 20006

Agency for International Development
Room 214
Rosslyn Plaza East
Washington, D.C. 20523

BFC-TV Films
National Council of Churches
Room 860
475 Riverside Drive
New York, New York 10027

Guide to Government Loan Films
Serina Press
70 Kennedy Street
Alexandria, Virginia 22305

United Nations 16mm Film Catalogue, available:

United Nations
Radio and Visual Services Division
Office of Public Information
New York, New York 10017

Third World Cinema Catalogue
Tricontinental Film Center
P.O. Box 4430
Berkeley, Calfornia 94704
or
333 Sixth Avenue
New York, New York 10014

Films on Food and Hunger*

Food and Hunger: General

1) **Hunger** (12 min/1974/color) Available: Learning Corporation of America, 1350 Avenue of the Americas, New York, New York 10019

The junior winner of the Cannes Film Festival, this depicts in animation the contrasting worlds of the "haves" and the "have nots."

2) **Not Enough!** (28 min/color/free) Available: CROP, Box 968, Elkhart, Indiana 46514

This illustrates the growing gap between food production and population growth in Thailand and India.

3) **Tilt** (20 min/color/free/35 and 16mm) Available: World Bank, c/o Mr. Garrick Lightowler, 1818 H Street, N.W., Room D-949, Washington, D.C. 20009

An animated cartoon, produced in cooperation with the World Bank, this deals with global realities, myths and problems about the pursuit of productive world development.

4) **Glass House** (12 min/color/rent $15.00) Available: Association Instructional Materials, 866 Third Avenue, New York, New York 10022

An allegory about the destructive nature of unrestrained affluence.

5) **World Hungry** ($79.95 filmstrips, $84.50

cassette) Available: TELEKETICS, 1229 South Santee Street, Los Angeles, California 90015
*Five filmstrips dealing with Fictions and Facts about World Hunger; How Hunger Happens; The Green Counter-revolution; Knowledge and Lifestyle; Churches and Political Action. A wall poster is also included.

6) Hunger on Spaceship Earth (40 min/$15.00/104 slides) Available: American Friends Service Committee, 15 Rutherford Place, New York, New York 10003
A film focused on solutions to world hunger and what you can do about it.

*Unless otherwise specified, these films are suitable for showing to audiences in the junior high school through adult range.

7) The Hungry Planet (29 min/1976/color/$35.00) Available: Planet Earth, Ltd., 5204 37th Street, N.E., Seattle, Washington 98105
Surveys world hunger and looks at ways to feed hungry people so that they can feed themselves later.

8) Food for All (60 min/color/$30.00) Available: National Council of Churches, TV Film Library, Room 860, 475 Riverside Drive, New York, New York 10027
Narrated by Hugh Downs, this documentary examines the causes of world hunger, here and around the globe.

9) Tragedy or Triumph (28 min/1974/color/$25.00) Available: McGraw-Hill Films, 1221 Avenue of the Americas, New York, New York 10020
Surveys causes of current world food situation and looks at the World Food Conference held in Rome in 1974.

10) The Great Divide (20 min/1967/black and white/$12.00) Available: Time/Life Films, 43 West 16th Street, New York, New York 10011
A well-fed and prosperous American is contrasted with that of the lifestyle of an Indian peasant.

11) Voices of Hunger (35 min/color/$45.00) Available: Time/Life Multimedia, 100 Eisenhower Drive, Paramus, New Jersey 07652
The host is Bill Moyers and the subject is India, its food problems, droughts, and famines.

12) Bread for the World (20 min/color/$12.00) Available: Bread for the World, 235 East 49th Street, New York, New York 10017
This examines hunger in terms of competing priorities such as trade, employment, and military spending.

13) Human Issues in Science: Hunger (four records and filmstrips; teachers guide) Available: Scholastic Book Services, Scholastic Magazines, Inc., 904 Sylvan Avenue, Englewood Cliffs, New Jersey 07632
Titles: Too Many People?; Growing Enough Food; Using Pesticides; Artificial Foods.

Nutrition and Malnutrition

1) Nutrition: Food vs. Health, produced in 1975 by Sunburst Communications. Two color filmstrips with cassette; $45.00; #984 (use title and number when ordering) Available: Mass Media Ministries, 2116 North Charles Street, Baltimore, Maryland 21218.
Designed to encourage critical awareness of nutritional needs and eating habits.

2) Eat, Drink and Be Wary (20 min/1974/color/$21.00) Available: Churchill Films, 662 North Robertson Boulevard, Los Angeles, California 90069.
The role of advertising in promoting bad nutrition through junk foods is examined in a film aimed at teenagers and young adults.

3) Diet for a Small Planet (28 min/1974/color; sound/purchase $325.00, rent $30.00/16mm) Available: Bullfrog Films, Box 114, Milford Square, Pennsylvania 18935.
A film about the need to reduce our meat intake in order to free more protein for the hungry people of the world, this explores three main topics: 1) nutrition of protein, 2) ecological cost of meat

protein, and 3) cooking with complimentary proteins.

4) Bottle Babies (28 min/1975/color/$15.00) Available: TriContinental Films, 333 6th Avenue, New York, New York 10014.

The effect of multinational corporate marketing of infant formula on infant health and mortality is documented in this disturbing film which points to the need for a return to breast feeding.

Food Production and Distribution

1) The Food Revolution (26 min/1969/color/rent $23.00) Available: McGraw-Hill Films, 1221 Avenue of the Americas, New York, New York 10020.

This is a CBS documentary on new food technologies and the efforts of scientists to cope with the problems of feeding the world's hungry.

2) Green Grow the Profits (90 min/color) Available: Brandon Film, 34 MacQuesten Parkway South, Mount Vernon, New York 10550.

An ABC documentary on agribusiness methods and how they affect our food supply.

3) Hard Times in the Country (58 min/1970/color;$20.75 or black and white;$15.25) Available: Indiana University, Audio-Visual Center, Bloomington, Indiana 47401.

A WNET-TV study of the effects of food industry concentration on farmers and consumers.

4) Rich Man, Poor Man: Food (52 min/1972/color/$50.00) Available: Time/Life Films, 43 West 16th Street, New York, New York 10011

The impact of 20th century technology on food production is contrasted with struggling efforts of Third World countries in this BBC-TV documentary.

5) Who Shall Reap (29 min/1969/color/University of Illinois; $3.00 or University of Indiana; $5.00).

An award-winning film about the struggle of the world powers to protect their crops and livestock from insects, diseases, and weeds.

6) Let's Have a Garden. Available: Rodale Press, Educational Service Department, Emmaus, Pennsylvania.

A three part film designed to illustrate the stages of working a garden: "Planning-Preparation-Planting," "Mulching-Maintenance-Making Things Grow," and "Picking, Peeling, Preserving."

Food and Culture

1) Stores of Eden (25 min/1965/color/$23.00) Available: McGraw-Hill Films, 1221 Avenue of the Americas, New York, New York 10020.

An award-winning film on a year in the life of a primitive farmer in Afghanistan.

2) What's Nice? Rice! ($7.50) Available: Friendship Press, P.O. Box 37844, Cincinnati, Ohio 45237.

A film for children which looks at the effects of hunger and how the church and its members can help.

3) 113,900 Million and One (50 min/1974/color/$25.00) Available: Oxfam-America, 302 Columbus Avenue, Boston, Massachusetts 02116.

A BBC film on the life of a south Indian farm family and the special role that children play in maintaining the family's welfare.

Hunger in the U.S.

1) Hunger in America (50 min/1968/black and white/rent $20.00) Available: Mass Media Ministries, 2116 North Charles Street, Baltimore, Maryland 21218. Columbia Broadcasting System. Also available at $7.50 from: AFL/CIO Film Library, 815 16th Street, N.W., Washington, D.C. 20006.

An all-time classic, this provides a stark look at 10 million hungry Americans, mostly kids.

2) The Great American Novel: Grapes of Wrath (28 min/1967/color/rent $25.00/16mm) Available: BFA Educational Media, Division of CBS, 2211 Michigan Avenue, Santa Monica, California 90404. CBS News.

This draws a parallel between migratory laborers in Steinbeck's 1939 book and the lifestyles of

many poor Americans today. There are striking similarities, all accented by Richard Boone's reading from *Grapes of Wrath.*

3) To Feed the Hungry (45 min/1970/color/$40.00). Available: Contemporary Films, McGraw-Hill, Princeton Road, Hightstown, New Jersey 08520

A documentary about poverty in Chicago, with particular emphasis on the Black Panther breakfast program.

4) How Things Hide People (color/sale;no rentals $10.00/ 71 frames/record and script) Available: Friendship Press Distribution Service, P.O. Box 37844, Cincinnati, Ohio 45237.

This attempts to explode stereotypes about the poor and hungry by talking to people who are receiving government aid.

5) The South: Health and Hunger (21 min/1969/black and white/rent $6.00) Available: Indiana University Audio-Visual Center, Bloomington, Indiana 47401. National Educational Television.

This documents the effects of extreme poverty on the health of blacks in the South.

6) Them People (43 min/1970/color/rent $12.00) Available: Cokesbury Service Centers (California: 85 McAllister Street, San Francisco 94108; Illinois: 1616 North Northwest Highway, Park Ridge 60068; New Jersey: 1600 Queen Anne Road, Teaneck 07666; Tennessee: 201 Eighth Avenue South, Nashville 37203; Texas: 1910 Main Street, Dallas 75221; Virginia: Fifth and Grace Streets, Richmond 23216). United Methodist Board of Global Ministries.

A look at welfare—the system and what it does to people.

7) Harvest of Shame (1960) Available: National Archives and Records Service (General Services Administration, 8th Street and Pennsylvania Avenue, N.W., Washington, D.C., and its regional archives branches and presidential libraries.) Also available on interlibrary loan at other libraries throughout the country.

A CBS documentary on migrant workers with Edward R. Murrow, this is a moving and informative film that aroused the nation when it first appeared.

8) Migrant (53 min/1970/color/$25.00) Available: NBC Educational Enterprise, 30 Rockefeller Plaza, New York, New York 10020.

Chet Huntley's report on migrant workers in the southeast, this raised a storm of protest from large growers when it was first shown. While still a very controversial film, it is one that should be seen and talked about.

9) The Forgotten American (28 min/1968/color/$15.00).

A CBS special on impoverished American Indians, including the Navajo and Hopi in the southwest, and the Indians living in Los Angeles and Chicago.

10) Appalachia: Rich Land, Poor People (59 min/1969/black and white/$13.00) Available: Indiana University, AV Center, Bloomington, Indiana 47401

A WNET-TV documentary about poverty and hunger in eastern Kentucky, this provides an especially revealing portrait of one of the most desolate areas in the country.

Consumer Education

1) Supergoop (13 min/1975/color;sound/rent $18.00) Available: Churchill Films, 662 N. Robertson Blvd., Los Angeles, California.

A film on television advertising designed for the elementary grades, this attempts to educate children to be wary of TV commercials, especially those for junk foods.

2) The Six Billion $$$ Sell ($26.00) Available: Consumer Reports Films, Box XC-27, 256 Washington Street, Mount Vernon, New York 10550.

A child's guide to TV commercials, designed to help elementary and junior high school students evaluate commercial advertising.

Strategies for the Future

1) Beyond the Next Harvest (27 min/1975/color/rent $25.00/16mm) Available: Mass Media Ministries, 2116 North Charles Street, Baltimore, Maryland 21218.

Narrated by Norman Cousins, this film highlights recent global developments behind the world food problem.

2) The Limits to Growth (30 min/color/rent $15.00) Available: Great Plains National Instructor's TV Library, Box 80669, Lincoln, Nebraska 68501.

Highlights of the Club of Rome report on the problems of increasing production and population and decreasing resources.

3) Taxes, Titles and Tabletalk (10 min/1970/sound filmstrip/$10.00) Available: Synesthetics, Box 254, Cos Cob, Connecticut 06807.

A church-sponsored film which provides discussion of needed solutions to hunger in the U.S. and the world (senior high, church groups, adults).

4) The Politics of Hunger (10 min/color/$15.00) Available: Mass Media Ministries, 2116 North Charles Street, Baltimore, Maryland 21218.

This examines the roles and responsibilities of governments in the struggle against world hunger.

Appendix B:

A Guide to Curriculum Materials

APPENDIX B

A Guide to Curriculum Materials

Basic General References

1) Focusing on Global Poverty and Development, A Resource Book for Educators, Jayne C. Millar (Washington: Overseas Development Council) March 1974 (630pp.; $12.00).

An essential resource, well worth the investment. Section I: A Development Perspective for Existing Courses (Secondary Level); Section II: Background Essays and Teaching Suggestions; Section III: Readings on Global Poverty and Development (Case Studies, Maps, Charts, etc.); Appendix: Films, Resource Organizations, Glossary.

2) Food: Where Nutrition, Politics and Culture Meet, An Activities Guide for Teachers, Deborah Katz and Mary T. Goodwin (Washington: Center for Science in the Public Interest) 1976 (214pp.; $4.50) Available: CSPI, 1755 S Street N.W., Washington, D.C. 20009.

Six categories of activities, with background information, readings, pretests, etc. for each: Eating patterns, nutrition, food and the consumer, food supply, hunger in the U.S., world hunger. Designed for use with high school students – emphasis is on student involvement and development of critical activities.

3) Creative Food Experiences for Children, Mary Goodwin (Washington: Center for Science in the Public Interest) 1974 (191pp.; $4.00).

A splendid collection of activities, facts, games and recipes designed to make food and nutrition of interest to children.

4) Nutrition Education Materials, an index to books, catalogues, films, and AV materials, etc. Available: The Nutrition Foundation, Office of Education and Public Affairs, 888 Seventeenth Street N.W., Washington, D.C. 20006.

5) Foods and Nutrition, program to introduce students to basics of a well-balanced diet – main food groups, function of nutrients, etc. (three recordings; five lessons; stock #167040; $51.65) Available: National Book Company, Education Research Associates, 1019 S.W. Tenth Avenue, Portland, Oregon 97205.

6) From the Ground Up: Building a Grass Roots Food Policy (Washington: Center for Science in the Public Interest) 1976 (137pp.; $2.50).

A handbook for individual action and group organizing against hunger: Alternative marketing, federal food programs, gardening, etc.

7) Global Development Studies, model curriculum for secondary schools and undergraduate college ($5.00) Available: Management Institute for National Development, 230 Park Avenue, New York, New York 10017.

8) Development: New Approaches, A Guide for Educators with Issues and Resources (Intercom No. 69). Includes bibliography and annotated film list (68pp.; $1.50) Available: Intercom, Center for War/Peace Studies, 218 East 18th Street, New York, New York 10003.

9) Nutrition Education, K-12, Teacher References, Concepts, Theories and Guides, nutrition education resource series, no. 3, revised February 1976 ($3.50) Available: National Nutrition Education Clearinghouse, Society for Nutrition Education, 2140 Shattuck Avenue, Suite 1110, Berkeley, California 94704.

10) The World Food Crisis: Three Units of Study for Children, Grades 5-8 and "World Food Crisis Resource Sheets." Available: Food and Hunger Concerns, Mennonite Central Committee, 21 South 12th Street, Akron, Pennsylvania 17501.

11) Teaching Tools for Consumer Reports, one of several educational guides produced by CU for use in the classroom (Series subscription, 8 months for $5.00) Available: Consumers Union, Education Division, 256 Washington Street, Mount Vernon, New York 10550.

12) WHEAT Enablers Manual (World Hunger Education/Action Together) interdenominational coalition under National Council of Churches. Available: National Council of Churches, 475 Riverside Drive, Room 564, New York, New York 10027.

The purpose of WHEAT is to develop leadership for world hunger problems in areas of church concern. Manual includes bibliography, brochures, background reading, simulation ideas.

13) Appalbrochure 1975, annual report and catalogue of Appalshop, a nonprofit corporation. Free catalogue (30 pp.) lists 26 available films. Available: Appalshop, P.O. Box 743, Whitesburg, Kentucky 41585.

"Committed to making dramatic and documentary records of Appalachian history, culture, and contemporary social problems."

14) Food and Population: The World In Crisis (New York: Arno Press) 1975 (387pp.; $35.00) Available: Through many libraries or from Arno Press, 336 Madison Avenue, New York, New York 10017.

One in the *New York Times* "Great Contemporary Issues" series. This is a compilation of articles, dispatches, speeches, etc. on world hunger reprinted from the daily edition of the *New York Times.*

15) World Food Crisis, edited by Lester A. Sobel (New York: Facts on File, Inc.) 1975 (172pp.; $8.95). Available: Facts on File, Inc., 119 W. 57th St., New York, New York 10019.

A record of the food-supply problems that reached world proportions during 1970-75; demonstrates the worldwide effect of international trade and diplomatic links in the matter of hunger and world food supply. Consists largely of the record compiled by Facts on File in its weekly coverage of world events (high school).

16) World Development: An Introductory Bibliography, Helen Castel (24pp.; $.35) Available: Joint Commission on Education and Cultivation, Board of Missions, United Methodist Church Service Center, 7820 Ready Road, Cincinnati, Ohio 45237.

Film guides and guide to simulation exercises.

17) Education for Justice, a resource manual, edited by Thomas P. Fenton (participant workbook also available) (resource manual $7.95, participant workbook $3.95) Available: ORBIS Books, Maryknoll, New York 10545.

Contains background readings, exercises, guidelines for planning programs, listing of additional resources, etc.

18) I. "Activity Ideas" for Groups and Communities, II. Legislative Compendium. Mail request with $.50 per packet to: Hunger & Priorities for Action, AFSC, 15 Rutherford Place, New York, New York 10003.

19) Multinational Corporations: A Guide to Discussion, Study, and Resources ($1.50) Available: Intercom, Center for War/Peace Studies, 218 East 18th Street, New York, New York 10003.

Background pros and cons and cases to show effect of MNCs on countries and people. Bibliography and discussion questions.

20) U.S. Relations with the Developing Nations: The New International Economic Countdown and **Update Interaction: Development Aid: Will It Be Caught in the Crunch?** and **Food/People: The Troublesome Equation.** Available: League of Women Voters Education Fund, 1730 M Street N.W., Washington, D.C. 20036.

21) The Hungry Millions: A Textbook on World Development, study guide and text on world poverty, colonialism, environment, aid, etc. (80pp.; $1.00) 1971. Available: The Workers' Education Association and Oxfam-America, 1028 Connecticut Avenue N.W., Suite 922, Washington, D.C. 20036.

22) Teaching Organic Gardening, edited by Rita Reever (Emmaus, Pennsylvania: Rodale Press) 1973) 116pp.; organic classroom series, unit no. 3) Available: Rodale Press, Educational Services Division, Emmaus, Pennsylvania 18049.

23) How to Start a School Gardening Program, 1975. Available: Gardens for All, Bay and Harbor Roads, P.O. Box 371, Shelburne, Vermont 05432.

24) A Child's Garden, A Guide for Parents and Teachers. Available: Chevron Chemical Co., Public Relations, 200 Bush Street, San Francisco, California 94120 (film *Growing . . . Growing* also available).

25) Index to Publications on Nutrition and Human Needs, 93rd Congress, prepared by the staff of the Select Committee on Nutrition and Human Needs, U.S. Senate, March 1975 (Washington: USGPO) 1975 (Stock #052-070-02763; 102pp.; $1.30) Available: Superintendent of Documents, USGPO, Washington, D.C. 20402.

26) World Food Problem: A Selective Bibliography of Reviews, Miloslav Rechcigl (Cleveland, Ohio, CRC Press) 1975.

27) We Are What We Eat, *Youth* magazine, special issue on world food and hunger crisis (contains articles, cartoons, "What You Can Do" handbook, etc.) July/August 1975 ($.70/copy; $55.00/100 copies) Available: Youth Magazine, United Church Press, Room 1203, 1505 Race Street, Philadelphia, Pennsylvania 19102.

28) Science for Society, A Bibliography (Washington, American Association for the Advancement of Science) 1976 (104pp; $3.00; Publication 76-2) Available: AAAS, 1776 Massachusetts Ave., N.W., Washington, D.C. 20036

Kits and Packets

1) Global Issue: HUNGER, background paper, AV material, bibliography, guide for planning programs. Available: National Association for Foreign Student Affairs, 1860 19th Street N.W., Washington, D.C. 20009.

2) Hunger on Spaceship Earth ($2.50 plus $.85 handling) Available: AFSC, 15 Rutherford Place, New York, New York 10003.

3) Hunger Kit, includes posters and a seven inch record with Mark Hatfield, Art Simon, and Larry Minear ($5.95) Available: Lutheran Church in America, Board of Publications, 2900 Queen Lane, Philadelphia, Pennsylvania 19129.

4) I Was Hungry: A Study/Action Kit on Hunger, filmstrips, article reprints, cartoons, study guide, etc. ($15.00) Available: United Church Press, 1505 Race Street, Philadelphia, Pennsylvania 19102.

5) Hunger in the Global Community, contains filmstrip and tape cassette narrated by Senator Mark Hatfield. World hunger and poverty in context of rich and poor nations ($12.50) Available: Center for the Study of Power and Peace, 110 Maryland Avenue N.E., Washington, D.C. 20002.

6) Malnutrition Issue Packet, contains information on types of malnutrition, its geography and security and strategies to fight it ($2.50) Available: American Freedom from Hunger Foundation, 1625 Eye Street N.W., Suite 719, Washington, D.C. 20006.

7) World Hunger Packet, includes 20 minute filmstrip with cassette ($10.00) Available: Center for Study of Power and Peace, 110 Maryland Avenue N.E., Washington, D.C. 20002.

8) World Hunger Crisis Kit: Hope for the Hungry (90pp.; $1.50 plus $.35 postage and handling) Available: World Without War Council, 1105 Dearborn, Chicago, Illinois 60603.

9) Teaching About World Hunger (order #5419; $2.00) Available: UNICEF, 331 East 38th Street, New York, New York 10016.

A survey of hunger and malnutrition in developing countries and the interdependent factors affecting world food supplies. Includes readings from *UNICEF News*, a wall sheet, a poster, and compari-

son charts showing patterns of food consumption and protein conversions, with a teacher's guide and an annotated bibliography (secondary level).

10) Hunger Packet, U.S. Power and Priorities Team, United Church for Homeland Ministries. Available: UCBHM, 287 Park Avenue South, New York, New York 10010. Also available: *Hunger Packet Revised* ($1.00).

Reprints of articles selected to provide background on world and domestic hunger. Suggestions for action for the individual and the group.

11) Packet on World Hunger, Presiding Bishop's Fund for World Relief Packet of posters, leaflets, reprints of article on hunger, and the book, *New Hope for the Hungry.* Entire packet available free on request: Mrs. Marion Bingley, Presiding Bishop's Fund, 815 Second Avenue, New York, New York 10017.

12) Seeds of Change, the CROP ToolMobile and **The Wonderful World of Windmills.** All emphasize ways CROP helps people help themselves. Available: CROP, Box 968, Elkhart, Indiana 46514.

13) World Food Crisis: A Self-Education Package ($2.00 each) Available: Committee for Self-Education, 11 Garden Street, Cambridge, Massachusetts 02138.

14) Food/Population/Development Packet, resources, program ideas, action suggestions (order #P5027; $2.00) Available: United Methodist Board of Church and Society, 100 Maryland Avenue N.E., Washington, D.C. 20002.

15) Hunger: Study/Action Packet, readings, reprints, brochures. Available: Pacem In Terris, 1106 North Adams Street, Wilmington, Delaware 19801.

16) Packet on World Hunger. Available: World Hunger Committee, Diocese of Rochester, 750 West Main Street, Rochester, New York 14611.

17) Hunger: Everyone's Problem, brochures, posters, readings, etc. Available: The Program Agency, The United Presbyterian Church in the U.S.A., 475 Riverside Drive, New York, New York 10027.

18) UNA-USA Mini-Kits for UN Conferences, world population, world fund, etc. Scenarios and basic information for use in model U.N. conferences ($1.00 each) Available: UNA-USA, 345 East 46th Street, New York, New York 10017.

19) A Child Shall Lead Them . . . (packets at $.50 each) Available: A child Shall Lead Them, A.F.S.C., 15 Rutherford Place, New York, New York 10003.

Programs for children dealing with food and the problem of hunger. Stories, arts and crafts, activities, games (elementary age).

20) Teaching About Africa with Pictures ($1.75); **You and Your Nation's Priorities,** games, etc. ($1.35); **People are Hungry Everywhere,** workbook ($1.95); **How India Feeds the Hungry** ($1.35) Available: Friendship Press, P.O. Box 37844, Cincinnati, Ohio 45237.

21) To Do Justly, live session adult course on world hunger ($1.00 each) Available: Diocese of California, 1055 Taylor Street, San Francisco, California 94108.

Simulation Games

1) Simulation Games for the Social Studies Classroom, William A. Nesbitt (New York: Thomas Y. Crowell Co.) 1971 ($2.50).

2) Target: Development Action, American Freedom from Hunger Foundation 1972 (85pp.; $1.50) Available: AFFH, 1625 Eye St., N.W., Washington, D.C. 20006.

3) A Bibliography of Educational Simulations. Available for rent from the Church Center for the

U.N., 1971 (7pp.; free) Available: National Council of Churches, Church Center for the U.N., 777 U.N. Plaza, Room 10E, New York, New York 10017.

4) **Baldicer,** each player is a "food coordinator" responsible for the survival of 150 million people. Deals with world food production, distribution, and trade ($25.00) Available: John Knox Press, Box 1176, Richmond, Virginia 23209.

5) **Star Power,** deals with the world's unequal distribution of wealth and power ($3.00) Available: Simile II, P.O. Box 1023, La Jolla, California 92037.

6) **The Game Nations Play** ($2.00 game; $3.00 game and charts, discussion questions) Available: June Hatoor, 66 Lincoln Road, Tiffin, Ohio 44883.

Game for six players representing developed countries and LDCs. Illustrates intricacies and problems of international politics as they apply to development aid.

7) **Hunger on Spaceship Earth,** part of the American Friends Service Committee (AFSC) hunger kit. Available: AFSC, 15 Rutherford Place, New York, New York 10003.

8) **Food for Thought,** a simulation activity relating the issues of food shortage, population density, and distribution of wealth ($3.00) Available: The Population Institute, 110 Maryland Avenue N.E., Washington, D.C. 20002.

9) **Poppin' Swap,** a card game, similar to rummy, designed to teach students the nutritional value of foods and the penalties involved in empty calorie foods. Available: The Pillsbury Co., 608 Second Avenue South, Minneapolis, Minnesota 55402 ($22.50 for 5 decks).

10) **Super Sandwich,** a one class period game designed to teach students about the nutritional and caloric value of various foods, especially popular snack items. Available: Teaching Concepts, Inc., 230 Park Avenue, New York, New York 10017 ($12.95 plus $1.50 handling).

11) **Vitamins,** a card game designed to teach students about the essential vitamins and the functions they perform. Available: The Lawhead Press, Inc., 900 East State Street, Athens, Ohio 45701 ($8.00).

12) **The Planet Management Game,** students become managers for an imaginary planet and learn about the problems of pollution, famines, and population explosion. Available: Houghton Mifflin Co., One Beacon Street, Boston, Mass. 02107.

Posters, Charts, and Maps

1) **World Grain Consumption 1976** (one large wall chart plus ten notebook size reproductions $.50) Available: Population Reference Bureau, 1337 Connecticut Avenue N.W., Washington, D.C. 20036.

2) **Nutrition Games/Juegos de Nutricion,** a bilingual nutrition poster with games and suggestions for alternative snack foods ($2.00) Available: ACT, 46 Austin Street, Newtonville, Massachusetts 02160.

3) **Nutrition Scoreboard Poster,** 18" X 24", brightly colored nutritional ratings for over 200 foods ($1.75) Available: CSPI, 1757 S Street N.W., Washington, D.C. 20009.

4) **The Urban Farmer** and **Gardening for Health and Nutrition,** posters. Available: Institute for Self-Reliance, 1717 Eighteenth Street N.W., Washington, D.C. 20009.

5) **Grains In Your World,** a spirit master program from the Quaker Oats Co., 1976 ($1.00 each) Available: Grains In Your World, Box 14302, Dayton, Ohio 45414.

Activities designed to introduce the six main cereal grains, their role as a food product, and their economic and nutritional importance.

6) **Trends in Developing Countries,** tables and charts provide background on population, economic growth, etc., 4th edition, 1971 (71pp.; free) Available: World Bank Publications, 1318 H Street N.W., Washington, D.C. 20433.

7) **A Study and Action Packet for World Development,** reprint of "The Case for the New Economic Order" and ideas on what citizen action groups can and are doing (four posters, for study $2.00) Available: U.N. Development Programme, One U.N. Plaza, New York, New York 10017.

8) **New World Atlas** (#3433) maps and charts depicting world population, nutrition, resources, etc. Available: Hammond-Scholastic, Scholastic Book Services, 907 Sylvan Avenue, Englewood Cliffs, New Jersey 07632.

9) **From the Earth to Your Table,** an activity spirit master program about the economics of food, designed for use with high school students (free) Available: Office of Communication, U.S. Department of Agriculture, Washington, D.C. 20250.

Cookbooks: General

1) **Receipes for a Small Planet,** Ellen Ewald (New York: Ballantine) 1973 (350pp.; $1.95).
Based on the Lappé-book, *Diet for a Small Planet*, this is full of excellent recipes using whole grains, vegetables, fruits, and nuts.

2) **The New York Times Natural Foods Cookbook,** Jean Hewitt (New York: Avon) 1972 (434pp.; $2.25).
Good variety of easy-to-make meals using natural ingredients imaginatively.

3) **The Vegetarian Epicure,** Anna Thomas (New York: Vintage) 1972 (320pp.; $4.95).
Elegant but simple vegetarian cooking.

4) **Vegetarian Gothic,** Mo Willett (Harrisburg, Pennsylvania: Stackpole Books) 1975 (156pp.; $5.95).
Interesting recipes, suitable for cooking in quantity, all easy to make and good to eat.

5) **Foods of the World,** Richard L. Williams, series editor (New York: Time/Life Books) 1969.
Recipes plus well-illustrated text documenting food habits and customs in various countries around the world.

6) **Good Recipes for Hard Times,** a cookbook for people on a limited budget, Louise Newton (Houghton Mifflin Co.) 1975 (149pp.; $3.95).
Good, wholesome cooking for families where food costs must be kept to an absolute minimum, along with hints for economy shopping.

Cooking with Kids

1) **Creative Food Experiences for Children,** Mary T. Goodwin and Gerry Pollen (Washington: Center for Science in the Public Interest) 1974 (191pp.; $4.00).
A splendid book, full of recipes, teaching ideas, guides to other resources, etc.

2) **Cooking Adventures for Kids,** Sharon Eadwallader (Boston: Houghton Mifflin) 1974 (101pp.; $4.95).
By the author of the *Whole Earth Cookbook*, designed to teach school-age children the basics of cooking with natural, healthful foods, and to encourage them to be creative. Easy, fun to do recipes.

3) **Kids Are Natural Cooks,** Roz Ault (Boston: Houghton Mifflin Co.) 1974 (129pp.; $3.95) illustrated by Lady McCrady.
Developed by and for a cooperative preschool (Parents' Nursery School, Cambridge, Massachusetts), this book has a personalized touch with its

simple child-tested recipes based on natural foods, and value in its sound information on nutrition and cooking techniques. The material is organized seasonally; the illustrations are both entertaining and instructional. Guidelines provided for teachers and parents should help them introduce good nutrition to children easily and enjoyably.

4) 1 Pinch of Sunshine, ½ Cup of Rain, Ruth Cavin (New York: Atheneum) 1973 (95pp.; $5.95) illustrated by Frances Gruse Scott.

A commendable collection of natural food recipes for main dishes and snacks which points out the merits of using foods that are "as wholesome and natural as the sun and rain that made them." Nutritional tidbits are included with easy directions for the entries – many intended to be as visually appealing as they are healthful. Suitable for children age 5 and up.

5) How to Make Elephant Bread, Kathy Mandry and Joe Toto (New York: Random House) 1971 (30pp.; $4.99).

The clever premise of this book – offering whimsical names for nutritious snacks for children, since adults have fancy names for their foods – is carried out well by the text and illustrations. Young children (K-2) should enjoy the humor in all fifteen selections, including Spooky Cream, Apple Swamp, Tree Trunk, and of course, Elephant Bread.

6) The Bread Book, Carolyn Meyer (New York: Harcourt Brace Jovanovich) 1971 (96pp.; $4.98) illustrated by Trina Schart Hyman.

The history and traditions of bread are presented along with an explanation of how bread is made at home and in commercial bakeries. Recipes for regional and international varieties of bread are supplied. Indexed and illustrated.

7) The Little Witch's Black Magic Cookbook, Linda Glovach (New Jersey: Prentice Hall) 1972 (48pp.; $4.95).

A mostly entertaining book for elementary school children containing simple-ingredient recipes (ghost toast, ticklish tea) and appealing illustrations along with clear directions and holiday ideas.

8) The Peanut Cookbook, Natalie Donna (New York: Lothrop, Lee and Shepard Co.) 1976 (56pp.; $6.50) illustrated by Robert Quackenbush.

A versatile compilation of recipes for peanuts and peanut butter, featuring 19 ideas for peanut butter sandwich filling and 17 suggestions for using peanuts in other dishes. Natural foods are emphasized throughout. Selections include peanut butter soup, vegetarian peanut burgers and peanut granola. A metric conversion table is supplied.

9) Many Hands Cooking, Terry T. Cooper and Marilyn Ratner (New York: Thomas Y. Crowell Co. in cooperation with the U.S. Committee for UNICEF) 1974 (50pp.; $4.00).

Colorful illustrations accompany this collection of recipes from 40 countries coded from very simple-to-make to more involved. Hints on ingredients, safety, and measurements and international menu ideas are included. Age 5 and up.

10) Chemistry and Cooking, Philip B. Carona (New Jersey: Prentice Hall) 1975 (112pp.; $5.95) illustrated by Paul Coker, Jr.

Easy-to-understand explanations of chemical processes involved in preparing various foods such as yogurt, bread products, and mayonnaise. Simple related lab demonstrations and a glossary are provided; cartoon-type illustrations complement the text well. Suitable for children in grades 5-8.

Appendix C:

Sources of Information and Materials

APPENDIX C

Sources of Information and Materials

These are just a few of the organizations working in the areas of food and world hunger. An excellent, comprehensive guide, "Who's Involved With Hunger," is available for $1.00 plus postage and handling from:

World Hunger Education Service
2115 S Street, N.W.
Washington, D.C. 20008

Governmental Organizations	*Newsletters*
Agency for International Development (AID) 320 21st Street N.W. Washington, D.C. 20523	*War on Hunger* (free; 12/year)
Agriculture Committee, U.S. House of Representatives 1301 Longworth House Office Building Washington, D.C. 20515	
Center for Economic and Social Information (CESI) Office of Public Information Room 10005 United Nations New York, New York 10007	*Development Forum*
Food and Agriculture Organization (FAO) 1776 F Street N.W. Washington, D.C. 20437	*CERES; Food and Nutrition*
Senate Committee on Agriculture and Forestry 322 Russell Senate Office Building Washington, D.C. 20510	
Senate Select Committee on Nutrition and Human Needs Senate Annex 119 D Street N.E. Washington, D.C. 20510 (Reports and hearings -- many available free on request)	
United Nations Childrens Fund (UNICEF) U.N. Plaza New York, New York 10017	*UNICEF News*

Private Agencies	*Newsletters*
U.S. Department of Agriculture (USDA) 14th Street and Independence Avenue S.W. Washington, D.C. 20250	
Action for Children's Television 46 Austin Street Newtonville, Massachusetts 02160	*ACT Newsletter* ($15.00/Year)
Agribusiness Accountability Project P.O. Box 31331 Diamond Heights Station San Francisco, California 94131	
American Freedom from Hunger Foundation 1625 Eye Street N.W. Washington, D.C. 20006	*AFFH Bulletin* (12/year)
American Friends Service Committee (AFSC) World Hunger Project 15 Rutherford Place New York, New York 10003	*Relay* (12/year; free)
Bread for the World 235 East 49th Street New York, New York 10017	*Bread for the World* ($10.00/year)
Center for Science in the Public Interest (CSPI) 1757 S Street N.W. Washington, D.C. 20009	*Nutrition Action* (12/year; $10.00)
Children's Foundation 1028 Connecticut Avenue N.W. Washington, D.C. 20036	*Feed Kids* (12/year; free)
Community Nutrition Institute 1910 K Street N.W. Washington, D.C. 20006	*CNI Weekly Report* (weekly; $25.00)
Food Research and Action Center 25 West 43rd Street New York, New York 10036	
IMPACT 110 Maryland Avenue N.E. Washington, D.C. 20002	*Hunger* (8 issues/year)
Institute for Food and Development Policy Box 57 Hastings-on-Hudson New York, 10706	In Preparation

Private Agencies	*Newsletters*
Institute for Policy Studies 1901 Q Street N.W. Washington, D.C. 20036	*The Elements, A Journal of World Resources* (11/year; $5.00)
Interreligious Task Force on U.S. Food Policy 110 Maryland Avenue N.E. Washington, D.C. 20002	*Food Policy Notes* (30¢/issue)
National Student Association Food Action Center 2115 S Street N.W. Washington, D.C. 20008	*The Food Action Exchange* (12/year; free)
Overseas Development Council 1717 Massachusetts Avenue N.W. Washington, D.C. 20036	
Resources for the Future 1755 Massachusetts Avenue N.W. Washington, D.C. 20036	*Resources* (4/year; free)
Society for Nutrition Education 2140 Shattuck Avenue Berkeley, California 94704	*Journal of Nutrition Education* (4/year; $10.00)
World Hunger Education Service P.O. Box 2474 Washington, D.C. 20013	*Hunger Workshop Notes* (12/year; $6.00)
Worldwatch Institute 1776 Massachusetts Avenue N.W. Washington, D.C. 20036	*Worldwatch Papers* ($25.00/year)

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Consumer Beware! Your Food and What's Been Done to It, Hunter
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Food: Fact and Folklore, Jenner
Food Facts for Teenagers, Salmon
Food Facts for Young People, Arnold and White
Food for Nought, Hall
Food for People, Riedman
Food for People, Not for Profit, Lerza and Jacobson, ed.
Food for the Hungry, Segal
Food for Thought, Labuza
Food in History, Tannahill
Food in Your Future, Barons
Food is for Eating, Podendorf
Food, AAAS Compendium
Food Problems of Developing Countries: Implications for U.S. Policy, Gov. Doc.
Food, Readings from Scientific American
Food Scorecard, Wilson and Jacobson
Foods America Gave the World, Verrill
Food You Eat, The, Marr
Foxfire Book, The, Wigginton, ed.
Fresh, Canned, and Frozen, Wise

G

Geometry of Hunger, The, Halacy
Give Us This Day . . . , *New York Times*
Global Food Shortage, Perl
Green Grass and White Milk, Brandenberg
Groceries in the Ghetto, Sexton

H

Hailstones and Halibut Bones, O'Neill
How Plants Are Made, Gutnik
How Plants Make Food, Gutnik
How to Eat a Poem and Other Morsels, Agree
How Will We Feed the Hungry Billions?, Hey
Hunger: Man's Struggle to Feed Himself, Scott
Hunger, U.S.A., Citizen's Board of Inquiry
Hungry Planet, The, Borgstrom

L

Let's Talk About Food, White, Slevey, ed.
Let Them Eat Promises, Kotz

M

Man and His Environment: Food, Brown and Finsterbusch
Mankind at the Turning Point, Mesarovic and Pestel
Miracle of Vitamins, The, Faber
"Mosaic Special: Food, A", NSF

N

Natural Foods, Fenten and Fenten
New Hope for the Hungry?, Minear
New World of Food, The, Lewis
Nutrition, Behavior and Change, Gifft, Washbon, and Harrison
Nutrition Factor, The, Berg
Nutrition and Health, Gov. Doc.
Nutrition and Our Overpopulated Planet, Manocha
Nutrition Scoreboard, Jacobson

O

Our Hungry Earth, Pringle

P

Plants Give Us Many Kinds of Food, Moncure
Plants That Feed the World, Frisch
Politics and Responsibility of the North American Breadbasket, The, Brown
Politics of World Hunger, The, Simon and Simon
Poverty in American Democracy, Campaign for Human Development
Poverty Profile, USA, Procopio and Perella

R

Race Against Famine, Benarde
Race Between Food and People, Joy
Radical Agriculture, Merrill, ed.

S

Seed to Civilization, Heiser
Seeds and More Seeds, Selsam
Seeds of Change, Brown
Slumps, Grunts and Snickerdoodles, Perl
Still Hungry in America, Coles
Stone Soup, Brown
Strategy for Plenty, A, U.N. Report
Supermarket Trap, The, Cross

T

This Hundry World, Helfman
This Hungry World, Vicker
Two Faces of Malnutrition, The, Eckholm and Record

U

U.S. Nutrition Policies in the Seventies, Mayer, ed.
Use of Chemicals in Food Processing, Production, Storage, and Distribution, NAS

V

Value of Food, The, Fisher and Bender

W

What Plants Produce, Gutnick
Who Gets Food Stamps, Gov. Doc.
Wonderful World of Food, The, Orr
World Atlas of Food, The, Grigson, ed.
World Food Crisis, The, Marx, ed.
World Food Problems and Prospects, The, Johnson
World Food Prospect, The, Brown
World Food Situation and Prospects to 1985, USDA Gov. Doc.
World Food and Nutrition Study, NAS

FILMS

Appalachia: Rich Land, Poor People
A World Hungry

Beyond the Next Harvest
Bottle Babies
Bread for the World

Diet for a Small Planet

Eat, Drink and Be Wary

Food for All
Food Revolution, The
Forgotten American, The

Glass House
Great American Novel, Grapes of Wrath, The
Great Divide, The
Green Grow the Profits

Hard Times in the Country
Harvest of Shame
How Things Hide People
Human Issues in Science: HUNGER
Hunger
Hunger in America
Hunger on Spaceship Earth
Hungry Planet, The

Let's Have a Garden
Limits to Growth, The

Migrant

Not Enough!
Nutrition: Food Vs. Health

Politics of Hunger, The

Rich Man, Poor Man: Food

Six Billion $$$ Sell
South: Health and Hunger, The
Stores of Eden
Supergoop

Taxes, Tables and Tabletalk
Them People
Tilt
To Feed the Hungry
Tragedy of Triumph

Voices of Hunger

What's Nice? Rice!
Who Shall Reap

113,900 Million and One

Curriculum Materials

A

"Activity Ideas" for Groups and Communities
Appalbrochure 1975
A Child Shall Lead Them . . .
A Child's Garden

B

Baldicer
Bibliography of Educational Simulations
Bread Book, The

C

Chemistry and Cooking
Cooking Adventures for Kids
Creative Food Experiences for Children

D

Development: New Approaches. A Guide for Educators with Issues and Resources

E

Education for Justice

F

Focusing on Global Poverty and Development
Food and Population: The World in Crisis
Food for Thought
Food/Population/Development Packet
Food: Where Nutrition, Politics and Culture Meet
Foods and Nutrition
Foods of the World
From the Earth to Your Table
From the Ground Up: Building a Grass Roots Food Policy

G

Game Nations Play, The
Global Development Studies
Global Issue: Hunger
Good Recipes for Hard Times
Grains in Your World

H

How to Make Elephant Bread
How to Start a School Gardening Program
Hunger: Everyone's Problem
Hunger in the Global Community
Hunger Kit
Hunger on Spaceship Earth
Hunger Packet
Hunger: Study/Action Packet
Hungry Millions: A Textbook on World Development, The

I

Index to Publications on Nutrition and Human Needs, 93rd Congress
I Was Hungry: A Study/Action Kit on Hunger

K

Kids Are Natural Cooks

L

Little Witch's Black Magic Cookbook, The

M

Malnutrition Issue Packet
Many Hands Cooking
Multinational Corporations: A Guide to Discussion, Study, and Resources

N

New York Times Natural Foods Cookbook, The
New World Atlas
Nutrition Education, K-12, Teacher References, Concepts, Theories and Guides
Nutrition Education Materials

Nutrition Games/Juegos de Nutricion
Nutrition Scoreboard Poster

O

One Pinch of Sunshine, ½ Cup of Rain

P

Packet on World Hunger
Packet on World Hunger
Peanut Cookbook, The
Planet Management Game, The
Poppin' Swap

R

Recipes for a Small Planet

S

Seeds of Change, the CROP Tool Mobile
Simulation Games for the Social Studies Classroom
Star Power
Study and Action Packet for World Development, A
Super Sandwich

T

Target: Development Action
Teaching About Africa with Pictures
Teaching About World Hunger
Teaching Organic Gardening
Teaching Tools for Consumer Reports
To Do Justly
Trends in Developing Countries

U

UNA-USA Mini-Kits for UN Conferences
Urban Farmer, The
U.S. Relations with the Developing Nations: The New Economic Countdown

V

Vegetarian Epicure, The
Vegetarian Gothic
Vitamins

W

We Are What We Eat
WHEAT Enablers Manual
Wonderful World of Windmills, The
World Development: An Introductory Bibliography
World Food Crisis
World Food Crisis: A Self-Education Package
World Food Crisis: Three Units of Study for Children, Grades 5-8
World Food Problem: A Selective Bibliography of Reviews
World Grain Consumption 1976

National
Science
Teachers
Association

1742 Connecticut Avenue, N.W.
Washington, D. C. 20009

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